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THE ORIGINS AND ESTABLISHMENT
OF THE MACHINE-LACE INDUSTRY
IN AYRSHIRE.

By
JAMES MAIR.

Submitted for
The Degree of
MASTER OF LETTERS
UNIVERSITY OF GLASGOW
1973.

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INTRODUCTION

This is a study of a unique local industry in Scotland, and an investigation into the conditions which nurtured it, without losing sight of the people involved in its growth from simple beginnings in which weaving was merely another household task to utilize wool produced at home, to a highly mechanised industry, strongly competitive in world markets with sophisticated commercial links and outlets.

As a study it is more descriptive than analytical, as it is hoped that the material will speak for itself. The theme is the benefits that flow from the continuity of various social and economic elements in society any one of which might promote stability while the others are disrupted. Our own are never the only efforts that count. We act upon our environment and try rationally to control it, but each generation depends upon its predecessors for the conditions it receives from the past, and up to this point the three communities of the Irvine Valley in Ayrshire have been fortunate in their inheritance.

Until recent times economic decisions could be taken in the district, affecting the lives of everyone within it. This is no longer possible in present circumstances, in the light of governmental fiscal policies, international political and commercial agreements, and the growth of bigger units in which each business is only an expendable part of a large trading organization and the workpeople, a small and insignificant group in a heterogenous and amorphous trade union.

At the end of the period under review, with the trade facing many difficulties, it may be that no real problem exists and that another adaptation is all that is necessary to maintain the development of the local textile industry and to retain the special character of the people. Families in the district still own most of the surviving companies and the local union preserves its independence and individuality. But too much has happened in the last hundred years to allow a solution similar to the one which introduced the lace industry in/

in 1875 to save the textile trade from oblivion. The savings and energies of the people are no longer directed into a single industrial enterprise and large numbers have sought wider horizons.

The decline of the lace industry, at first gradually between the two world wars and then rapidly since the mid-1950s, has not been considered here in detail. The period covered by it is too brief in the context of this study, and the decline might prove to be part of another transitional step into new lines of production and must therefore be left for future analysis and documentation.

My thanks are due at the completion of this work to a great number of persons in Ayrshire. Among them three local historians helped me to identify and describe the original personnel of the lace and madras companies, Mr R.M. Paterson of Newmilns, retired headmaster; Mr John Falconer of Galston, retired college principal; and Mr John Woodburn of Darvel, retired joiner. Assistance in mastering technical matters in textile production was given by Mr William Jamieson of Alexander Jamieson & Company; Mr John Steel of Steel & Company; Mr George Jamieson of David Ligat & Sons and the late Mr Angus Hood of Joseph Hood & Company, Engineers, Newmilns.

I am greatly in debt to Mr John McCartney, Newmilns Burgh Librarian and to Miss S.M. Halley, Reference Section, Carnegie Library, Ayr for their kindness and tolerance during my long vigils on the premises and in dealing with my perpetual inquiries and requests.

I am particularly grateful to Mr James Inglis, ex-Chairman of the Scottish Lace Furnishing Manufacturers' Association, to Mr William Dempster, ex-General Secretary of the Scottish Lace and Textile Workers' Union and to their executive committees for granting access to their files, for without it very little insight could have been achieved into the later history of the industry. Finally, I thank Mr Anthony Slaven my supervisor of studies at the University of Glasgow. Busy with the other innumerable tasks and duties of his post, yet he was always available for another consultation to proffer friendly encouragement, criticism and advice.

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ABBREVIATIONS

- Manf. Ass. Minutes - Minutes of the Scottish Lace
Furnishing Manufacturers'
Association.
- N.S.A. - New Statistical Account of
Scotland.
- O.S.A. - The Statistical Account of
Scotland.
- Third S.A. - Third Statistical Account of
Scotland.
- Union Minutes - Minutes of Scottish Lace and
Textile Workers' Union.
(Previously the Newmilns and
District Textile Workers'
Union.)
- "W.S." - The Galston "Weekly Supplement."

PART ONE

The Handloom Period

1780 - 1875

Chapter I

The Organization of the Domestic Trade

I.

The Early Textile Trade.

The tempo of change in the lives of people caught up in industrialisation in the late 18th and early 19th centuries is in retrospect seen as extremely rapid and disruptive. In contrast, pre-industrial societies seemed to experience an infinitely slow transition whereby differences emerged only over generations or from one century to the next. However, even in the modern period changes were often imperceptible, and in certain parts of Britain where the people were mainly dependent upon a single type of occupation, it is difficult to find any dramatic point at which their customs, social organization and political attitudes were reshaped.

One such district is the Irvine Valley in Ayrshire where textile production was of long standing. Woollen cloth is known to have been produced in the locality from at least the 16th century. The first account of a weaver is found in Galston Parish Church records in April 1573 when James Meytchell, wabster, bore witness to the baptism of his daughter; a year earlier Johnne Roxbro of Auchinrugland had a son baptised and gave his occupation as waulker.⁽¹⁾ The fact that these men were separately described as wabster and waulker, and not simply named with a place of residence, demonstrates that these crafts were already well established, but these were part-time activities restricted by the scarcity of raw materials and the limited nature of the local market. The work was clearly carried on as a side line to tenant farming, and the homes of both these men were in the clustered ferm-touns in Loudoun and Galston parishes.

It is not surprising that weaving was significant here for the town of Newmilns was created a Burgh of Barony in 1490 with "free liberty of buying and selling in the said Burgh, wines, wax, woollen/

(1) Galston Parish Church Records, 22nd June 1572.

woollen and linen cloths broad and narrow"⁽²⁾ and once established as the first inland burgh in Ayrshire, situated on important routes from Edinburgh to Ayr, and from Glasgow to Dumfries, it provided a market centre and attracted weavers of cloth to live in the town and neighbourhood. (Map 1 p.9)

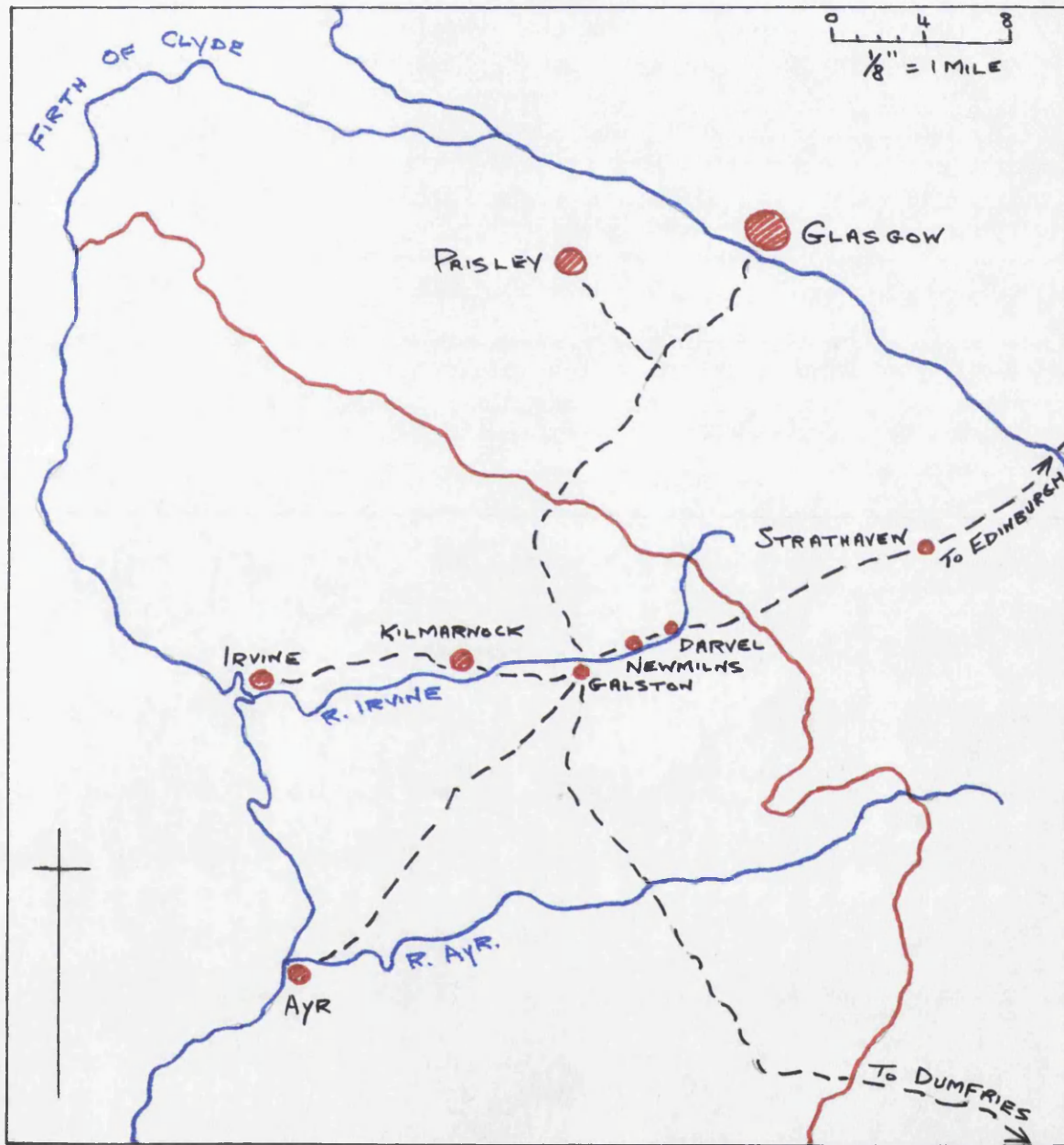
During the 16th and 17th centuries, Flemish and English workmen were encouraged to settle in Scottish burghs to practise their craft and to teach the native workmen their more advanced methods.⁽³⁾ It did not take long for the technique of drawloom weaving to spread throughout Scotland, and in this part of Ayrshire the result was the production of woollen blankets and plaiding, a craft which survived into the 20th century. From the 16th to the mid-18th century the weaving of woollen cloth was an important business in Newmilns and Galston, with Newmilns and Kilmarnock being the markets for the disposal of the cloth. During this period the weavers were occupied in customer work, supplying cloth to the amount of yarn provided by the country folk, who utilized it for their own needs. The raw material was obtained locally and "the women in all the labourers' and farmers' houses, were in the habit of spinning on very large wheels, the coarse country wool."⁽⁴⁾

During the 17th century various acts, particularly those of 1661 attempted to encourage the production of fine woollen cloth in Scotland and a manufactory was established soon after at Ayr.⁽⁵⁾ However, these and subsequent efforts by the Scottish Parliament made little impression on the traditional pattern of production. At best, some excess cloth began to find its way into the packs bought by Glasgow exporters from merchants in Kilmarnock, but right up to the end of the 17th century most surplus Ayrshire cloth continued to be sent out from Ayr and Irvine. The main destination was Rotterdam and in return linseed/

- (2) Charter upon the creation of the town of Newmyllis into a Free Burgh of Barony, 9th January 1490/1. Translation in "Ayrshire Collections" Vol.1. 1947-49. Ayrshire Archaeological and Natural History Society. pp.95-97.
- (3) Local tradition gives the names of Howie, Gebbie, Frame, Fleming and Scade as proof of immigration by Flemish and Huguenot refugees.
- (4) W. Fullarton "General View of the Agriculture of the County of Ayr," 1793, p.78.
- (5) "Ayrshire Collections" Vol.2 "The Royal Burgh of Ayr", ed. Annie I. Dunlop, 1953, p.175.

MAP 1

The Location of Galston, Newmilns and Darvel on or near Important Toll Roads in the Eighteenth Century.



— Ayrshire Boundary. (Based on the map on p.156 of "Ayrshire Collections" Vol.V.1959.)
- - - Route of the Roads.

linseed for flax, and materials for dyes were brought back among other goods.⁽⁶⁾ Up to this time there was only a very slow growth in the number of weavers, and it is only after the Union of 1707 that the increasing number of feus granted to weavers indicate that the trade was beginning to expand.⁽⁷⁾ This was in spite of the fact that fine cloth production suffered severely from English competition, and in contrast to many other districts in Scotland fine woollen weaving survived in eastern Ayrshire. As evidence of this period of prosperity in the town's history, the burgesses of Newmilns built a new Council House and prison in 1739.

Notwithstanding this success the prospects for fine woollen cloth were limited as English competition increased, and the expertise of the area was quickly attracted to linen production as this industry gathered momentum under the influence of the Board of Trustees after 1727. Accordingly the production of woollen cloth dwindled before the encroachment of the linen trade, but it was never completely replaced. As late as 1776, for example, John Smith, dyster, paid feu for "house and yeard, Waulk mill, candle room and dye house" at Longhouse, Galston,⁽⁸⁾ and provided facilities for dyeing and waulking the cloth of the district. There was also a waulk mill at Greenhead, Newmilns in 1771.⁽⁹⁾ Nicol Brown of Lanfine, a local magnate, had converted this by 1811 to a teasing and carding mill which supplied/

- (6) Ibid. Vol.6, p.72. "The Overseas Trade of Ayrshire, 1660 - 1707," T.C. Smout.
- (7) In the Register of Sasines many examples occur, e.g. 10th December 1723 "All and Hail 3 Acres of Land with Houses, Yeads Presently Possest by Robert Steill Weaver in Hillhead." 28th December 1762 "Disposition by this said William Stewart of Isles in favour of James Deyks (Weaver) in Patesmiln."
- (8) Account Book of the Blairs of Longhouse quoted in the "Weekly Supplement," 9th February 1894.
- (9) Register of Sasines, 8th October 1771.

supplied yarn to the carpet makers in Kilmarnock,⁽¹⁰⁾ and throughout the 19th century the Richmond family of the Plash Mill in Galston made "blankets, plaiding, druggets, sheetings, and flannels" by water driven machinery.⁽¹¹⁾ As in Stewarton further north much of the cloth was also made into bonnets and the woollen industry survived in these special lines of production.

When linen production was first introduced it followed the pattern set by the woollen trade in its localised system of manufacture. Flax from the district was scutched, heckled and spun there, and the customer weavers made the cloth for local people. Any output beyond the needs of the area was exported from the west of Scotland to Holland, but as with the wool before it the number of weavers was restricted by dependence on the local cultivation of flax. The fabrics were narrow and plain, striped or checked, limited in style and width by the capacities of the early handloom, working two heddle shafts with a hand thrown shuttle. In this system once the yarn was spun the weaver required no specialised assistance until his web was despatched to the customer or merchant. Before the invention of the flying shuttle stimulated numerous innovations and revolutionised techniques, the weaver was master of most of the processes which saw his web through the loom. Any advance on this type of organization and production depended upon improving communications to ease the supplies of raw material and to enable finished goods to be moved easily and cheaply. This was becoming possible in the 1760s and 1770s in the Irvine Valley.

From about 1750 onwards in Ayrshire, and earlier in the parish of Loudoun, agricultural improvements were pressed forward. John, Fourth Earl of Loudoun adopted enclosure, consolidation of farm holdings and new methods of production. In the parishes of Loudoun/

(10) William Aiton, "General View of the Agriculture of the County of Ayr." 1811, p.593.

(11) "W.S." 31st August 1894. Mechanised production of blankets continues today in Richmond's Mill now owned by the S.C.W.S. This is the last remaining connection with the old woollen trade.

Loudoun and Galston a large number of tenants were forced out of the ferm-touns by increased rent in order to make way for single occupants in individual farms.⁽¹²⁾ As early as 1756 in addition to crops of turnips, cabbages and carrots,⁽¹³⁾ flax had been included as a field crop by the farmers and proprietors in both Loudoun and Galston and local supplies were substantially increased.

By 1750 road communications were also greatly improved. The road from Edinburgh to Ayr crossed the Glasgow to Dumfries road at Galston and both were surfaced following the Turnpike Act of 1766. This permitted greater ease of movement, and made it simpler for the local industry to supply its cloth to Glasgow and to the Ayrshire ports as part of the cargoes going out to the colonies in the prosecution of the thriving tobacco trade. The result was a massive increase in output in both Scotland and Ayrshire.⁽¹⁴⁾ This is shown by the figures of government stamped cloth in Table I.

Table I.

Linen Cloth Production in Ayrshire, 1728-1788
(Decennial Figures)

<u>Year to</u> <u>1st Novr.</u>	<u>Total Production</u> <u>in yards</u>	<u>Total Value</u> <u>£</u>
1727 - 28	26,699 $\frac{1}{2}$	2,086. 17. 2
1737 - 38	68,723 $\frac{3}{4}$	3,252. 18. 0
1747 - 48	95,190 $\frac{1}{2}$	5,351. 14. 5
1757 - 58	139,161	7,480. 12. 11 $\frac{3}{4}$
1767 - 68	123,543	6,590. 16. 3
1777 - 78	50,826 $\frac{1}{2}$	3,000. 10. 6 $\frac{1}{2}$
1787 - 88	54,109 $\frac{3}{4}$	3,314. 1. 8

(Returns of the Stamp Master of Linen Cloth in
Henry Hamilton "The Economic History of Scotland
in the 18th century" pp.406-9)

The/

- (12) The farm of Laigh Milton on the edge of Loudoun parish had a rent of 1/- and 1/6d an acre in the year 1766. By 1811 it had risen to £4 an acre. Aiton, op.cit.,p.169.
- (13) Aiton, op.cit.,p.68.
- (14) Between 1728 and 1788 government stamped linen goods produced in Scotland rose from three to eighteen million yards. H.Hamilton "An Economic History of Scotland in the 18th Century." 1963 pp.404-405.

The increase in scale was accompanied by a departure from the old system of production. For the first time Scots manufacturers based their transactions on large extensions of credit; they bought the raw yarn in the country districts, distributed it, bought in the woven cloth and marketed it. This expansion of linen production was also associated with an increase and movement of population. In 1751 the first twelve feus of the new village of Darvel were allocated, and from about this date the three villages of the Irvine Valley grew rapidly as the success of the linen industry attracted more and more people from the farming sector. (15)

In 1700, most men in the parishes had been tenant farmers working a run-rig system, but by the end of the century such farmers had been reduced to a hundred in Galston parish and in Loudoun to over half that number. (16) These remaining small farmers still cultivated plots of flax, as did the large estates, but from mid-century onwards as the process of linen making became progressively specialised they ceased to weave cloth commercially, for farming and cloth making were no longer combined. Processes such as heckling, spinning, weaving and bleaching were still carried on in the rural parishes, but by then they were practically the full-time occupations of people who lived in the villages and towns and not spare time occupations for farmers. It was only in upland isolated districts that many families continued to raise flax and, after having it heckled and the yarn spun and bleached, wove their cloth on their own looms or had it done by a customer weaver. Elsewhere, as in Newmilns and Galston, the capitalist organization of production was becoming effective by 1750.

Between 1751 and 1790 three lint mills were set up at Longhouse, Plashmill and Dalquharn in Galston parish, (Vid. Maps 2 and 3, pp. 15 and 16) and when in full production they required more flax than could be provided in the two parishes. The annual productive capacity of these rural mills was around 1,000 stones. (17) Colonel Fullarton estimated in 1793 that this amount of flax would derive from the cultivation of 36.75 acres. (18) In that year/

(15) Within fifty years the numbers estimated in Newmilns and Galston had doubled to 1,000 and 600, and in Darvel had risen from two or three farming families to 400 inhabitants.

(16) Fullarton, op.cit., p.87.

(17) H.Hamilton, "The Industrial Revolution in Scotland" 1966p.96.

(18) Fullarton, op.cit., p.78.

year thirty acres of flax were grown in Galston parish,⁽¹⁹⁾ hardly enough to support one lint mill, and clearly the three mills depended not only on the flax cultivation of Galston and Loudoun, but also that of neighbouring parishes.⁽²⁰⁾ Most of this local flax was destined for coarse cloth production, and when quality linen was woven in the Irvine Valley the yarn was normally provided by the merchants of Glasgow and Paisley, who quickly organized the domestic weaving of linen and concentrated the financing and marketing of the product into their own hands.

Ayrshire men were closely associated with these developments and the career of John Brown of Lanfine is a microcosm of the progress of the linen industry in the second half of the 18th century. Born in Newmilns in 1729, he was the second surviving son of Nicol Brown, surgeon, and when first placed at work, it was as an apprentice weaver with his relative Alexander Blair, lintmiller in Galston.⁽²¹⁾ The lintmillers were also weavers and beside each mill there were properties let to other weavers.⁽²²⁾ This placing of a professional man's son in weaving was increasingly common by the 1740s for "a great many gentlemen's sons went to that business... as the making of fine linens and hollands was beginning to be introduced into Scotland a little before this time."⁽²³⁾ Shortly afterward he left Galston and worked for several/

(19) Ibid. p.87.

(20) In 1815 the Blair's lintmill in Galston received lint to be dressed from "parties within a radius of eight to ten miles."

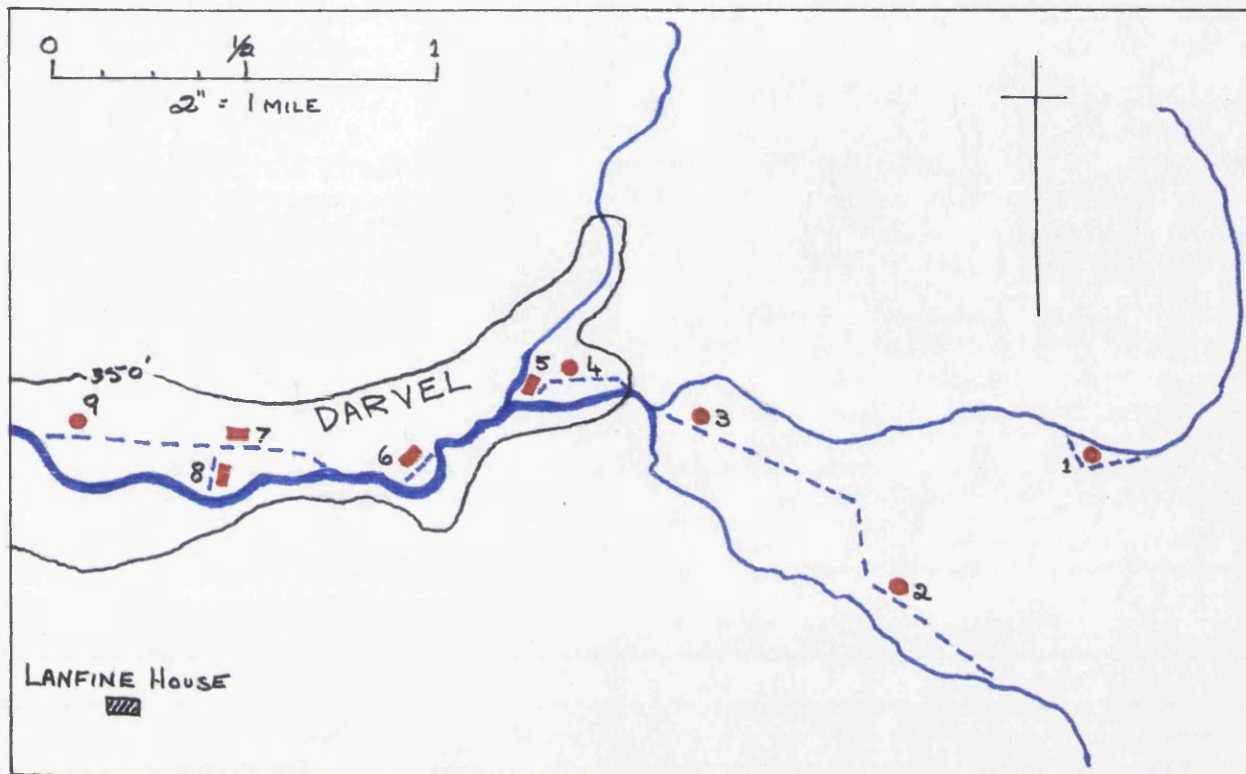
(21) Brown of Lanfine Papers. John Brown, "Recollections," p.151.

(22) "Robert Sarrs, weaver, pyed his rent from Whosunday, 1783 to Whosunday 1784." Blair's Accounts, "W.S." 23rd February 1894.

(23) Brown, op.cit., p.151.

MAP 2

Irvine Valley Water Mills in the Nineteenth Century.
(Darvel Area)



(Based on O.S. 6" Ayrshire Sheet X1X 1856 and the Register of Sasines, County of Ayr.)

■ Textile Mills ● Other Mills - - - - - Mill Lades

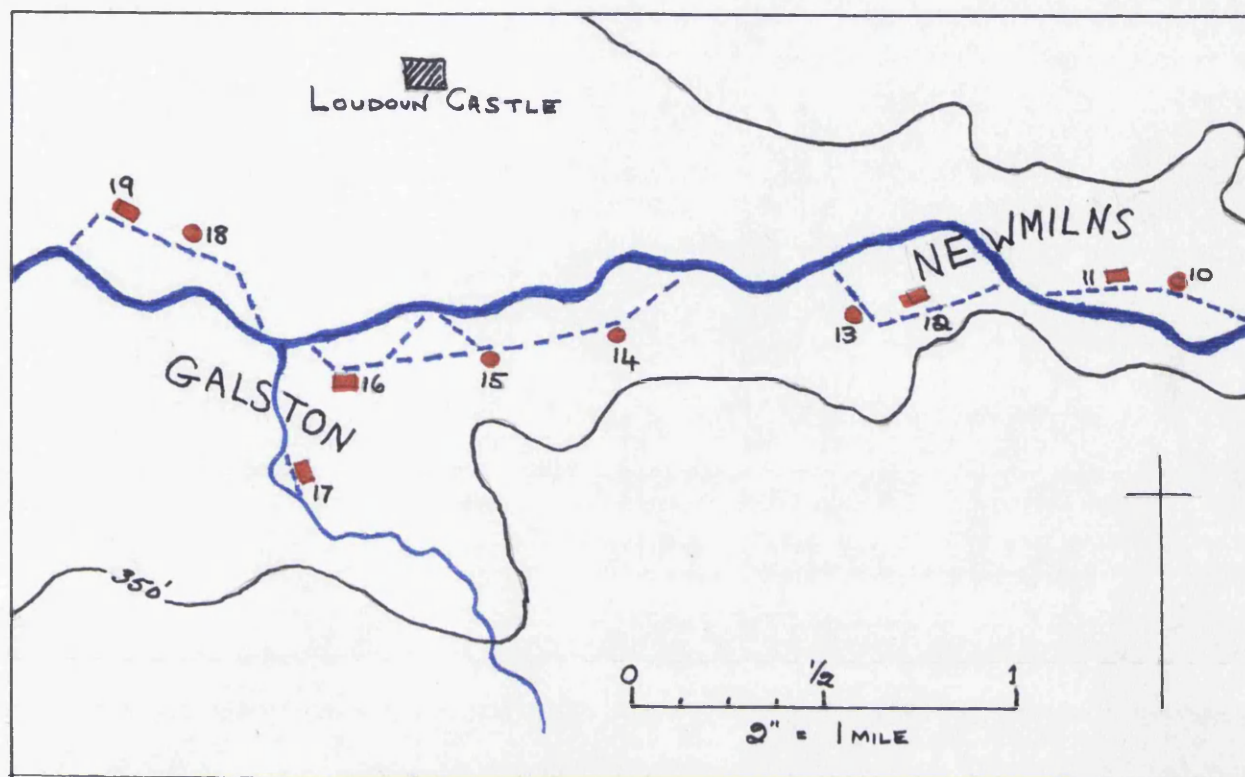
— 350' Contour

Key to Map 2

<u>Number</u>	<u>Name</u>	<u>Type</u>
1	Allanton Mill	Corn
2	Bransfield Farm & Mill	Corn
3	Priestland Mill	Corn
4	Darvel Mill	Corn
5	Townhead Mill	Waulk Mill (Later a Clipping Mill)
6	Ranaldcoup Mill	Lintmill
7	Dalquharn	Lintmill
8	Stanners	Lintmill
9	Greenmill	Corn

Irvine Valley Water Mills in the Nineteenth Century.

(Newmilns and Galston Area)



(Based on O.S. 6" Ayrshire Sheet X1X 1856 and the Register of Sasines, County of Ayr.)

■ Textile Mills ● Other Mills - - - - - Mill Lades

~~~~~ 350' Contour

Key to Map 3

| <u>Number</u> | <u>Name</u>    | <u>Type</u>                               |
|---------------|----------------|-------------------------------------------|
| 10            | Loudoun Mill   | Corn                                      |
| 11            | Greenhead Mill | Waulk Mill<br>(Later Teazing and Carding) |
| 12            | Blair's Mill   | Clipping Mill                             |
| 13            | Pate's Mill    | Corn                                      |
| 14            | Strathmill     | Paper                                     |
| 15            | Barrmill       | Corn                                      |
| 16            | Longhouse      | Waulk Mill<br>(Later a Lintmill)          |
| 17            | Plashmill      | Lintmill<br>(Later a Waulk Mill)          |
| 18            | Broommill      | Corn                                      |
| 19            | Bankhead       | Lintmill with Bleachfield                 |

several years in Shuttlefield factory in Glasgow to learn the whole range of the textile business. After this, with financial backing from his elder brother and loans from local people,<sup>(24)</sup> he went into partnership first with David Loudoun, manufacturer, in Candleriggs, and then with James McAlum in 1753 to set up a bleachfield at Camlachie. Brown's main business in this partnership was the organization of links to the flax grower;<sup>(25)</sup> the supervision of flax spinning; the buying and selling of linen thread and the management of the bleachfield.

Brown extended his interests very rapidly after this. In 1757 he entered on a new partnership with Alexander Fisher, son of the minister of Maybole, with a capital of £800, and stepped up his business as a yarn merchant, travelling through the counties of Stirling, Perth, Angus and Kincardine purchasing large quantities of thread.<sup>(26)</sup> At the same time he began to take advantage of the great demand for linen from the plantations of the West Indies and North America. Here, he and Fisher joined with Robert Carrick and sent out to the latter's brother, Peter Carrick, merchant in St. Kitts, "a quantity of goods, value £250, of various kinds," and soon after they consigned about £60 value in goods to Mr. Andrew Marr who was one-third concerned in another Brown partnership, and who was their agent in Charleston, South Carolina.<sup>(27)</sup> At this time, from his "Recollections," we find his firm engaged in trade in thread, gauzes, plain lawn, coloured checks and handkerchiefs. The next development occurred in 1759 when the firm of Brown, Carrick and Co. was established with capital of £1,500; Brown and Carrick each held a third of the capital with the rest divided among smaller shareholders, while Brown/

(24) Ibid. p.150. "Thomas Brown, surgeon, left Newmilns in 1746 and entered into the service of the East India Company and sailed four voyages and was very successful which gave him the means for he had the inclination of doing much good to his relations." In 1776 he bought the mailing and 117 acres at Langside for £4,000, having made an enormous profit on his dealings while with the East India Company.

On occasion he made investments for his brother John. "When my brother went last to India I sent out to him £14 sterling as a venture. He has now remitted me by draft the £14 and as much for profit. And again he gave me 4 gns. beside." Ibid. 1st January 1759.

(25) Ibid. 1st February 1753. "Account with Robert Wilson of Mauchline who gave out flax" to spin.

(26) Ibid. p.12.

(27) Ibid. p.15.

Brown was manager on a £50 salary. From this date his business made amazing progress and he made a quick personal fortune.<sup>(28)</sup>

Brown was not alone in establishing the close connections between the Irvine Valley and Glasgow and Paisley. Members of a number of families set up in business, many as linen drapers first and later as cotton merchants, and while Brown maintained an important warehouse in Glasgow, John Stewart of Newmilns who owned the small estate of Isles,<sup>(29)</sup> set up a similar establishment in Paisley. They and other merchants did not initially work through agents. They dealt directly with the master weavers until the volume of work increased and at the end of the 18th century most of the trade was done with Paisley. Irvine Valley cloths went there, rather than to Glasgow, because the Paisley district was the centre of quality products and bleaching was carried out more expertly there, consequently when bleachfields developed elsewhere in the west, workers were brought in from that town. In 1765 John Brown tells of the inconvenience of sending to and receiving back from Glasgow, "the figured goods especially, which were formerly all sent to Paisley".<sup>(30)</sup> He elected soon after to open a bleachfield at Carmile and, as on a previous occasion, employed a man on a high wage from Paisley to carry out this skilled work.<sup>(31)</sup>

The influence of Paisley is very marked on the weavers of the Irvine Valley, and encouraged an early specialisation in fine and fancy/

(28.) In 1767 he was elected Treasurer of the City of Glasgow and in 1768 he was appointed a Baillie. In 1769 he started to buy up land in Galston parish round the nucleus of the farm of Lanfine, the initial purchase of 400 acres costing him £2,211. The profit alone from his bleachfield was £200 in 1772. The final extent of the estate when his last descendant died in 1897 was around 10,000 acres.

(29.) Both John Brown and John Stewart signed the respective petitions of Glasgow and Paisley to the Government in 1793. "Observations on the State of Cotton and Silk Manufacturers at Glasgow and Paisley, 8th October 1793". Melville of Dunira Papers.

(30.) Brown, op.cit. p.101.

(31.) Ibid. p.101. "Engaged William Burns and his wife from Paisley to manage and servants at a wage of £30 for himself and £10 for his wife."

fancy goods. Lawn and linen gauze were made as early as the 1750s and the silk trade, established in Paisley in 1759 also spilled over into the district. In Galston the first loom "for silk or light work" was set up in 1787 and by 1791 these represented about forty out of a total of fifty-five looms.<sup>(32)</sup> However, even as fine linen and silk production increased to levels of high skill and quality, the spread of Crompton's mule and the availability of fine strong cotton yarn brought a new cloth into competition with linen and silk. By 1790 the demands of fashion began to favour cotton and the weavers of Loudoun and Galston parishes had mastered the new material and were producing cotton gauze on the foundation of the weaving skill gained in the production of fine grade linen and silk goods. The decade of greatest decline in linen in Ayrshire was the 1770s, while silk had a much shorter vogue covering the span in co-production with linen, up to the full establishment of cotton in the 1790s.

The move into cotton production was paralleled by a strong movement of rural folk into the villages as small holdings were combined in large farms. This newly released labour was attracted by the substantial earnings obtained in the weaving of cotton, and joined the ranks of the younger sons of farmers and professional people in the industry. Even so, the picture of the two parishes is one of stable growth rather than a headlong rush into a trade in boom conditions. Weavers' societies were still strong and determined prices and quality, and the indenture system legally controlled the flow of apprentices. The character of the villages in 1791 is portrayed by the occupations listed in the "Old Statistical Account" and the growing dependence on textiles can be seen through an analysis of employment in Galston at that date.

Table 2

(32) O.S.A. "The Statistical Account of Scotland" ed. Sir John Sinclair, 1792. Vol.2, p.79.

Table 2

The Numbers Employed in Various Occupations in Galston in 1791.

| <u>In Textile Work</u> |       | <u>In Other Employment</u> |       |
|------------------------|-------|----------------------------|-------|
| Weavers                | 55    | Shoemakers                 | 21    |
| Tambourers             | 24    | Wrights                    | 11    |
| Stocking Weavers       | 11    | Day Labourers              | 7     |
| Tailors                | 11    | Colliers                   | 7     |
| Sempstresses           | 4     | Grocers                    | 5     |
| Lintmillers            | 4     | Blacksmiths                | 4     |
| Dyers                  | 2     | Carters                    | 3     |
| Flax Dressers          | 2     | Papermakers                | 3     |
|                        |       | Coopers                    | 2     |
|                        |       | Carriers                   | 2     |
|                        |       | Horse Dealers              | 2     |
|                        |       | Butchers                   | 2     |
|                        |       | Gardener                   | 1     |
|                        |       | Mole Catcher               | 1     |
|                        |       | Baker                      | 1     |
|                        |       | Drummer                    | 1     |
|                        |       | Surgeon                    | 1     |
|                        |       | Druggist                   | 1     |
|                        |       | Schoolmaster               | 1     |
|                        | <hr/> |                            | <hr/> |
|                        | 113   |                            | 76    |

(O.S.A. Vol.2 page 79)

Table 2 shows 113 directly connected with the textile trade out of a total of 189 with shoemaking the only other large employer of labour in the parish.

The/

The number of weavers in Loudoun parish was 344 out of a population of 2,308.<sup>(33)</sup> Here as in so many towns and villages in the west of Scotland, the cotton trade supported the most numerous class of operatives in the community. Newmilns, an old established burgh, had a larger number of weavers than Galston, but in both weaving was run strictly on craft lines and the number involved grew steadily, allowing quality and skill to be maintained. The control by craft associations was so strong that any excess of young weavers did not dilute the industry, but was siphoned off by their emigration to do journeyman work in the loom shops of Glasgow and Paisley, while in the villages in the valley the increasing production was supported by farmers' widows and their daughters who moved there to find work in winding yarn and in clipping.

This foundation of muslin weaving in the Irvine Valley was more soundly based than much handloom weaving in the large towns, and unlike handloom operation elsewhere, was destined to survive the early mechanisation of weaving and did not decline until the introduction of machine-made lace. An important factor in explaining this survival lay in the attachment to light and fancy goods, to nets and gauzes, influenced by the outlet to Paisley, first in linen, then in silk and finally in cotton gauze. Not only did this fabric survive over a longer period than others in the successive movements in fashion, but as a foundation for other products it also resisted the invasion of the power loom. Handloom weavers of muslin in the Irvine Valley were to continue in competition with the power loom long after the great majority of handloom weavers had surrendered to large-scale mechanised production. Their choice of fabric was an advantage in the struggle, but in difficult times, other strengths in character and resources came to the weavers' assistance and enabled them to carry on until a suitable alternative presented itself.

## II

### The Manufacturing Process/

(33) Ibid. Vol.3, p.104.

|                               |       |
|-------------------------------|-------|
| Weavers in Newmilns, males    | 241   |
| " " " females                 | 25    |
| " " Darvel, all males         | 58    |
| " " other parts of the parish | 20    |
|                               | <hr/> |
|                               | 344   |

### The Manufacturing Process.

One important factor which led to long term benefits was the weavers' resistance to change in traditional methods of organisation. Between 1780 and 1840 the Irvine Valley was exposed to the same forces as the rest of the country; it was involved in the enclosure movement and affected by the activities of entrepreneurs who pressed forward the division of labour in manufacture in order to increase production. In the Irvine Valley the social impact of these changes was softened by the steady pace at which handloom weaving grew and, later, the full severity of depression in the textile trades was ameliorated by the availability of work on the land and by the cultivation of vegetables in the large gardens which were part of each weaver's feu.<sup>(34)</sup> The district also escaped the serious problems associated with a quickly expanding population and a rapid influx of immigrants as experienced in the large towns. The growing population therefore did not overwhelm the available occupations or swamp the existing supply of houses, and consequently the institutions for regulating the social and economic affairs of the community were effectively maintained over a longer period than in places which suffered from the miseries following in the train of rapid urbanisation.

The social and economic institutions which were able to stand the strains imposed by industrial expansions were the craft organisations of the woollen handloom weavers which continued undiminished into the times of the linen industry. These had appeared in practically all the Ayrshire burghs by the middle of the 17th century, having been incorporated by the municipal authority. The weavers' associations had local monopolies in the making and selling of goods within the burghs, and by the mid-18th century had extended their control into rural parishes and towns which were not burghs.<sup>(35)</sup>

(34) <sup>Membership/</sup>William Wyllie, "Ayrshire Streams," 1851, p.31. In Galston "many have plots of garden and potato ground which they industriously cultivate...When stagnation arrives, the produce of these plots proves eminently serviceable, frequently warding off the degrading humiliation of asking Parish Relief."

(35) The Strathaven weavers formed themselves into a society in 1736 and entered their articles of agreement in the Sheriff Court Books.  
Vid. Mary Gebbie "Sketches of Strathaven and Avondale," 1880, p.146. Fenwick weavers formed their association in 1761 and the Bonnet Court of Corsehill which directed the affairs of Stewarton bonnet makers, dates back to 1549. J.Strawhorn and W.Boyd "Ayrshire" Third S.A.of Scotland, 1951, p.484.

Membership meant gaining burgh status and craftsmen in the burghs had to purchase their burgh tickets at a fee determined by the burgh council. They were powerful organizations and as late as the 1780s were able, throughout Ayrshire, to maintain stringent conditions of entry, and to organize co-operative action to uphold prices and quality; the rules of all the associations and incorporated trades concentrated on these features.

In Girvan the rules drawn up by the weavers provided for uniformity of prices and quality, inspection of customary work, and fines for delinquency of many kinds, half of which had to go to the town council. There had to be quarterly meetings, rules for the election of a president, and apprentices from outwith the burgh were required to pay £1 entry fee. Masters, before admission, had to submit a specimen of their work and journeymen had to give six weeks' notice to employers. Provision was made out of the treasurer's box for the poor of the trade.<sup>(36)</sup>

In a comparison of requirements for admission to apprenticeship in various parts of Ayrshire, Newmilns masters demanded more initially, but gave better remuneration than in other districts. The term of apprenticeship was unvaryingly three years, both master and apprentice had to provide a cautioner,<sup>(37)</sup> and the indentures which maintained the privileged position of the weavers' societies were legal documents registered in the Book of Council and Session.

Apprentices were allowed to keep 7d in each shilling earned by their labour, and the master filled his pirns, and furnished him with one third of his candles. Five weeks were allowed off every year at harvest time during which the apprentice could earn good money in these rural communities where the harvest took precedence over everything else, but as an enticement to remain at the loom the master then offered an increase in payment to 10d in every 1/0d. The apprentice had to serve two days for every day absent immediately after the expiry of his indenture, and had to pay twopence for every penny lost through his own default, but given good health and diligence, the penalties were not too harsh.

Although/

(36) Article by W.B. Scott Valentine in "Girvan, 1668-1968," 1968, p.49.

(37) Indenture between John Morton and Hugh Mair, Newmilns, 1791, in the writer's possession.

Although the weavers were regulated by their own craft associations they were essentially independent producers, and this remained the case till the 1780s when linen production lost its dominant position. After this silk and later cotton altered the economic foundations of the weaving trade, and gradually forced changes in the organizational methods. As we have seen the weaving of silk goods was introduced to Paisley in 1759, and in the 1780s these were made in the Irvine Valley for Paisley manufacturers; about the same time at which cotton was quickly becoming the staple fabric of the district. The outlet for the new muslin production was through Paisley and Glasgow to markets in Britain, Europe and America, and individual weavers, no longer able to gauge the market, quickly fell into subservience to merchants and manufacturers in these towns, and lost their rigid control over the trade through the rules of their associations.

Within a very short period, and certainly by 1800, the production of cotton cloth was so specialized that the cotton merchant and the cotton spinner were already essentially putters-out of yarn which was then re-purchased as finished cloth at specified rates. The system worked through agents who lived in the towns of the Irvine Valley and other small country towns, and they were generally enlisted from among the master weavers. These men, who were the main link between manufacturer and weaver, identified themselves so closely with their own small communities that they were rarely tempted to defraud the weavers by dealing in embezzled weft in times of dull trade, a practice which was particularly widespread in the larger manufacturing towns.<sup>(38)</sup> Each local agent served a particular city manufacturer and was responsible for the allocation of orders to a number of weavers, usually between one hundred and four hundred. This system expanded rapidly with the growing trade in cotton goods. The first weaving agent in the district was John Wallace, a Galston merchant who combined capitalist enterprise with revolutionary politics, but by 1824 there were sixteen agents in the Irvine Valley, and by 1842 no fewer than thirteen agents and manufacturers in Newmilns alone. The Burgh/

(38) Handloom Weavers Commission, 1834. Minutes of Evidence Q 3360.

Burgh was dominant in the trade and remained so until the end of the handloom weaving era.<sup>(39)</sup>

A weaver might more readily change his agent than an agent his manufacturer, but it was in the interest of the weaver to maintain a stable working relationship with one agent to be assured of recurring orders, and for each agent to build up a number of reliable weavers;<sup>(40)</sup> although a weaver could be temporarily engaged for a rush order by an agent other than his own. The handloom weaver could no longer support a position of complete independence as he increasingly had to rely on the manufacturer for his warp, and the hold of the manufacturer was strengthened in this aspect of production as well as in the control already extended over the ordering and the wholesale disposal of cotton goods.

In this field customer work died out as it was extremely difficult, if not impossible, for a weaver to commission a warper to supply his individual needs, until even the occasional work arising in linen and silk was received through the offices of Paisley and Glasgow manufacturers. Warping, the first stage in cloth production, had inevitably become a specialised task because the design, which incorporated the figuring threads of the warp, had to meet the requirements of the fabric in demand, first by the manufacturer and ultimately by fashion, and these were subject to continuous changes. In contrast, the work of the beaming machine was mechanically repetitive and unaffected by the changing characteristics and magnitude of the warp and could be handled by the weavers themselves.

Eventually the numbers involved in handloom cotton weaving in the Irvine Valley became sufficient to make the installation of machinery a worthwhile investment and manufacturers found it practicable to have their warps done for them in local centres.

Thus/

f1 (39) "New Statistical Account of Scotland," 1845, Vol.5, p.850. Many of the family businesses of muslin agent or manufacturer developed into lace and madras manufacturing, retaining a place in the directories of both the domestic and factory periods. Vid. Pigot's "Directory of Scotland," 1837. Slater's "Directory of Scotland," 1867, and the "Vale of Irvine Almanac," 1881.

(40) A weaver might change his agent unless he were tied by debt as occurred at Maybole. There the agents acted illegally under the Truck Acts by paying the weavers in kind. N.S.A. Vol. 5, p.371.

A "kick" given by an agent to a weaver as an advance to meet the outlay of heddlings-in a new web was often quickly re-allocated to a local publican.

Thus by the year 1842 twelve persons were employed in Newmilns as warpers, warp winders and starchers to prepare warps in the area to add to those brought in by road.<sup>(41)</sup> However, even as distribution and marketing became more capitalistic the organization of weaving remained on more traditional lines, although important changes occurred there too.

The master weavers in the incorporated trades had indentured their apprentices and graduated those to the status of journeymen. The final breakdown of the system followed in the aftermath of the great weavers' strike of 1812, when with local associations financially ruined, and some leaders imprisoned, the bound apprenticeship disappeared. (Vid. below Chapter 4, pages 61 to 63 for the causes and results of the strike.) The master weaver who had made up and sold his own cloth was quickly replaced by the artisan weaver who, increasing in numbers from the 1780s, was paid by the piece and employed on the books of the cotton manufacturer.

This class of weaver clung to a degree of independence through owning his own loom, his cottage and a portion of land, and by joining in weavers' associations still attempted to exercise some control over entrance to the trade. In this they had very little success, and by the 1820s a weaver was either a domiciled artisan owning his own shop, loom, and weaving instruments, or a journeyman employed by others. The six-loom shop was unusual in this setting, for family cottages accommodated looms in small numbers, and after the introduction of the Jacquard machine the loom reached such a degree of sophistication that the cost and care of one loom sufficed for most families.

In the conditions of the trade in the early 19th century, with a mass influx of workers after 1815, the domestic organization of the artisan's family was better able to take the strain than the individual journeyman. In these circumstances the artisan weavers and their families drew all available work into themselves and fell back on accumulated resources and other forms of employment while large numbers of journeymen took to the roads searching for work. Until the late 1820s these were respectable men helped in their search for work by local societies, if they were bona fide members of their own society and carried a clearance card bearing/

(41) Ibid. p. 850.

bearing testimony to their character.<sup>(42)</sup> However, during the severe recurrent depressions of the late 1820s and the 1830s, and with the slow and inexorable decline in the economic standing of the handloom weaver, the number of men looking for work quickly multiplied until they were commonly seen walking in the countryside, and they became known as trampers. The word was initially purely descriptive, but during the 1830s and early 1840s work became very scarce and payment so low that these men, generally young with few domestic responsibilities, became demoralized and were regarded as undesirables by the respectable people of the rural villages which they visited.<sup>(43)</sup>

In contrast, the individual artisan weavers in the Irvine Valley managed to maintain a degree of economic security through owning their means of production. Generally they possessed spare looms and other equipment which at times of good trade enabled them to employ a few other weavers and save enough to invest in the newly introduced jacquard machine. They were already employers of labour in that members of their families were assistants in the trade, their sons and sometimes their daughters being placed at the loom at twelve and thirteen years, and when the harness drawloom was in vogue male children became drawboys from the age of seven or eight.

A breakdown of the nature of the membership of the Darvel Ravel/

- (42) S.J.Chapman, "The Lancashire Cotton Industry" 1904, p.26 "An article in the Rules of the Associated Weavers of Scotland (1824) declares that when a journeyman leaves a district he must carry a certificate to his new district stating that he has paid all the demands of his old district and also charges for weft-winding and his loom rent".
- (43) N.S.A. Vol.5, pp.854-55. "Much whisky is consumed in our villages by a class of weavers termed 'trampers', generally young men who, wearied of the restriction of home, wander from village to village, working for such as keeps looms on purpose to supply those wandering mechanics. They live miserably, spending the greater portion of their wages on whisky, which they consume, not only in public and private houses, but also in our fields. After thus 'wasting their substance in riotous living' they frequently decamp upon a sudden, leaving behind them debt and a bad example, neither of which they ever intend to cancel, and taking with them, in exchange for what they leave, many of the young men of the place where they have for a time been located, who are, in some distant villages, initiated into the loose ONGOINGS of the trampers life."

Ravel Society and its loom register provides some insight into the domestic organization on the weaving side in the villages in the Irvine Valley. There were in 1865, 268 members, twenty nine of whom were women, <sup>(44)</sup> and they owned 453 looms in the following proportions:

140 members had 1 loom  
66 members had 2 looms  
35 members had 3 looms  
19 members had 4 looms  
8 members had 0 looms

Women members of the weaving families were almost totally occupied either in pirn winding or hand clipping, leaving few free to work a loom except during periods of illness of the male weaver. Most of the wives were pirn-winders for their husbands, but widows and spinsters gained greater dexterity unencumbered by the usual household tasks and the care of large families. Elsewhere in the west of Scotland many women were employed on plain looms in handloom "factories" under the supervision and with the assistance of tenters, but in a family loomshop the male weaver had little time to devote to the maintenance and heddlings-in of a loom other than his own. (Print 3, p.215)

In sequence after weaving, clipping was the final major process in cloth manufacture in the domestic system, being done by hand by the female members of the family. This required large numbers of hands to cut the floated threads with outsize shears, the cloth being stretched face down across tables. By the late 1850s clipping mills were built in the Irvine Valley, (Vid. Maps 2 and 3 on pages 15 and 16) for with the harness and jacquard looms in use, complicated patterns were produced and the cropping of an immense number of threads was necessary.

Before home or factory clipping was undertaken the cloth had to be returned to the agent's ware-room for weighing to check that the amount of yarn weighed out in warp and weft corresponded to the end product, making allowances for dressing. When the clipped cloth returned to the ware-room it was inspected for faults and payment was made to the weaver for each piece, according to its fineness and quality and not to the length of time in manufacture. Fines were levied on faulty or damaged work, but mending generally rectified these and only disasters in the loom, caused by an inattentive drawboy or perhaps by the jacquard being "off the shot" would have brought serious repercussions on the weaver's income.

(44) <sup>The</sup> 3 widows, 12 wives and 14 spinsters. vid. "The Book of the Ravel Society."

The weaver's cloth was finally returned by carrier's cart to the manufacturer in the grey to be bleached and to receive a final dressing. The agent received five per cent on the value of all goods despatched to the manufacturer, and as the number of weavers working latterly for agents was usually around 200 the commission made embryonic capitalists of them.

The system of manufacturer, agent and weaver with ancillary workers lasted throughout the era of handloom cotton goods. After the hard years in the 1830s when the number of small manufacturers and agents proliferated adopting in many areas bad practices using stolen weft, fraudulent tickets at the beaming sheds, and underhand marketing, the surviving trade in handloom goods in the Irvine Valley settled down into a period of stability. Over the remaining years, and in the three towns during the time of the flourishing muslin furnishings trade between 1838 and 1872, the local agents employed larger numbers. This trend produced men of greater financial security, secured fair dealing and bolstered them during a slump, until the upward swing, or till the chance to strike out in a new enterprise presented itself.

I.

The Influence of Fashion.

In the early handloom days cotton products were almost wholly intended for the dress trade and this had developed naturally from the domestic linen industry of Scotland. The directories of the 1780s show Glasgow men as linen manufacturers, linen yarn merchants and printers<sup>(1)</sup> and ten years later the same men were described as cotton manufacturers, although they continued to deal in plain, figured and embroidered linen in diminishing quantities for many years afterwards.<sup>(2)</sup> From 1750 until 1780 the chief dress fabrics were silk for the rich and linen for the poor. Indian muslins imported by the East India Company were also in great demand by the rich, but by 1785 cotton had replaced all other fabrics in popularity.

The change had been initiated by technical advance, as the strong thread from Crompton's mule was readily obtainable from 1780. With strong weft, it became possible to imitate the muslins of India and this branch of manufacture quickly spread.

"The manufacture of muslins was begun in England in the year 1781, and was rapidly increased. In the year 1783 there were about 1,000 looms set up in Glasgow for the most beneficial article in which the skill and labour of the mechanic raised the raw material to twenty times the value it was when imported." (3)

Fashion/

- (1) "Directory of Glasgow," John Tait, 1783-84.
- (2) In the transitional period between linen and cotton at the end of the 18th century the products of Brown, Carrick & Co., Muslin Manufacturers are listed as "Manufactured Linens and Lawns plain and figured of all kinds; checked Bengals; Handkerchiefs of linen warp and Cotton woof; Tantareens; cravats plain and spotted; muslins in imitation of India muslins; Stripes composed of linen and cotton warp and cotton woof; Pullicates of linen and silk; Aprons of linen, silk and cotton; Gauze composed of silk in the warp and silk and linen thread time about in the woof; Fancy Gauzes striped, spotted and figured; Valenciennes; Figured and brocaded patent nets; striped brocades; chained gauze; French nets; mail nets besides which they manufactured a great variety of the more common loom weave cloths, viz., Blue and White striped and checks, Dambroads &c." Robert Reid, "Glasgow Past and Present," 1884, Vol. 2, p.217.
- (3) D. Bremner, "The Industries of Scotland," 1869, p.282.

Fashion immediately appreciating the possibilities of this fine cloth, revived the classic Greek form, and the ladies of the British aristocracy dressed themselves in white muslin gowns, light and diaphanous, which fell in soft flowing lines. With gossamer quality for the rich and thicker cottons for the poor, cotton production increased prodigiously as it spread as the fashionable fabric throughout Europe and America. The impact was such that previously

"a handsome cotton gown was not obtainable by women in humble circumstances... But now cotton yarn is cheaper than linen yarn, and cotton goods are very much used in place of cambrics, lawns, and other expensive fabrics of flax; and they have almost totally superseded the silks. Women of all ranks, from the highest to the lowest, are clothed in British manufacture of cotton, from the muslin cap on the crown of the head to cotton stockings under the sole of the foot."<sup>(4)</sup> (Print 1, p.214)

The immediate popularity of cotton cloth and the vast expansion of the market for it is clearly shown by the increase in raw cotton imports. As set out in Table 3 (page 32) the average annual increase in weight and value was almost five times greater between 1785 - 89 than in the previous five years.

Table 3 /

(4) Ibid. p.282.

"Muslins both striped and spotted will be a good deal more this summer. How far you are safe to manufacture many of them you must judge.... Your stripes last year were very well liked. The neatest of them are gone long ago." Letter to Alexander Speirs, Kilbarchan from Daniel Stuart, Dublin, 26th April 1788, quoted in "Kilbarchan, A Parish History" Robert D. MacKenzie, 1902, p.175. fn.2.

Table 3  
Imports of Raw Cotton into Scotland  
from America and the West Indies  
1758 - 1799

(Quinquennial Averages)

| <u>Years</u> | <u>Annual ave.<br/>in lbs.</u> | <u>Annual ave.<br/>in value<br/>£</u> |
|--------------|--------------------------------|---------------------------------------|
| 1758 - 62    | 81,753                         | 4,087                                 |
| 1764 - 68    | 102,338                        | 5,117                                 |
| 1770 - 74    | 175,143                        | 8,707                                 |
| 1775 - 79    | 194,713                        | 9,756                                 |
| 1780 - 84    | 267,942                        | 13,725                                |
| 1785 - 89    | 1,306,046                      | 65,437                                |
| 1790 - 94    | 2,525,860                      | 123,239                               |
| 1795 - 99    | 2,282,998                      | 114,148                               |

Figures for the years 1763, 1769 are not recorded.

P.R.O. Customs, 14 in Henry Hamilton "The Economic History of Scotland in the 18th Century," pp.412 - 413.

However, even this rate almost doubled over the next five years and precipitated the first important crisis in the cotton trade in 1793 as competition between the British cotton manufacturers and the East India Company came to a head. Through the great increase in the weaving of cottons in the 1780s prices began to fall and in 1792 Lancashire manufacturers, and in the following year those of Glasgow and Paisley, grasped the opportunity to campaign against the renewal of the Company's Charter. The Scottish merchants complained to the government of dumping, that they were "on the brink of ruin from the Company having at their last sales in July sold a greater quantity of muslins than at any former period," as part of a scheme by "the Company or London dealers to bear down the credit of the home manufacturers."<sup>(5)</sup>

In 1794, after the Company had obtained a renewal of its trading rights the Glasgow manufacturers sent a memorial to London/

(5) Melville of Dunira Papers. "Observations on the State of Cotton and Silk Manufacture at Glasgow and Paisley," 8th October 1793."

London to press their case for minimum selling prices. In an accompanying letter from Mr. Robert Findlay to Mr. William McDowall, M.P., it was asserted that the Company was selling muslins of poorer quality at prices far below their prime cost.<sup>(6)</sup> In reply on behalf of the Company it was pointed out that the commercial difficulties had been caused mainly by the loss of French and German markets owing to the war, and maintained that there had been no great increase in the importation of Indian muslins. Although it was admitted that between January 1792 and January 1794 the prices of the Company's muslins had fallen by sixteen per cent, it was argued that on average those of British manufacturers were thirty nine per cent lower.<sup>(7)</sup> Table 4 indicates that a distinct fall in price occurred in various cotton goods over the years in question.

Table 4  
Comparative Prices and the  
Percentage Difference of some  
Standard Cotton Goods between  
1791 and 1794.

| Description             | Average price<br>1791 - 92 |    |   | February<br>1794 |    |    | Percent Lower in<br>Feb. 1794 than<br>in 1791 - 2. |
|-------------------------|----------------------------|----|---|------------------|----|----|----------------------------------------------------|
|                         | £                          | s  | d | £                | s  | d  |                                                    |
| Abroaks                 | 7                          | 12 | 9 | 6                | 3  | 6  | 19                                                 |
| Addities                | 1                          | 5  | 6 |                  | 18 | 10 | 27                                                 |
| Alliballies             | 2                          | 13 | 7 | 2                | 12 | 6  | 2                                                  |
| Buddancas               | 6                          | 12 | 0 | 4                | 1  | 6  | 39                                                 |
| Dorcas                  | 1                          | 17 | 6 | 1                | 10 | 6  | 19                                                 |
| Mamoodies<br>(stitched) | 1                          | 6  | 9 |                  | 19 | 0  | 30                                                 |
| Nainsooks               | 6                          | 6  | 6 | 4                | 3  | 6  | 34                                                 |
| Seerbands               | 1                          | 5  | 3 |                  | 15 | 11 | 37                                                 |

(Melville of Dunira Papers, "Observations.")

The Company apologist was somewhat specious in its defence. The greatest reductions in prices were in the plain muslins of Lancashire/

(6) Ibid. "Memorial of the Muslin Manufacturers of Glasgow," 15th March, 1794.

(7) Ibid. Letter from Thomas Brown, Cheapside to Henry Dundas, 9th April, 1794.

Lancashire and in the heavy goods of that area such as calicoes, muslinets and dimities and in such coarse cottons as those represented in the list as dorcas, mamoodies and nainsooks, and in scanning the memorial from Glasgow he professed through ignorance or by intention that he could "not find among them many of the principal manufacturers," when in truth practically every leading manufacturer had signed.<sup>(8)</sup> However, the fall in prices and the loss of some European markets led only to a temporary halt in the expansion of the Scottish cotton trade, for the fall in sale price placed cotton fabrics further within the purchasing power of a larger number of consumers, and the gross annual production and value quickly increased into the 19th century.

As the consumption of cotton goods increased, lace trimmings and insertions became important features of dress fashion and when the Napoleonic Wars cut off the supplies of foreign laces the result was a broad stimulus to home production, and in Scotland, particularly, to the fostering of tambour work as an alternative to lace embellishment. This was further encouraged, for, while prices in general were falling, the rates for flowered or sewed muslin advanced, and decorative work, achieved by hand or by loom on ground fabric, was firmly established in the west of Scotland. They..."bring a great advance in price. Originally the patterns were copied from the Indian Muslin of this description. The greatest of the patterns are now invented in Britain; and many of the most beautiful kinds of them are sent to India for imitation."<sup>(9)</sup> But although between 1800 and 1820 the range of muslin widened, and colours were increasingly used, by the end of the period the classical influence had waned and fabrics in general became firm and opaque. Shawls and scarves increased in popularity, and in transferring to them Paisley entered upon its second stage of prosperity while Glasgow manufacturers had equal success in fine muslins. But after 1820 muslin itself declined and/

(8) Ibid. The signatures on the "Observations" and the "Memorial" included those of David Dale, John Brown, Kirkman Finlay and Archibald Bogle, all important men in the trade.

(9) Melville of Dunira Papers. "Observations."

and satin, velvet and poplin came into favour.

These changes in taste were accompanied by the ability to manufacture an ever-widening range of materials. Following John Levers' invention of a lace-making machine in 1813, tambour work lost ground to patterned machine-made dress lace, and by the 1820s, in addition to the lappet looms, various attachments to the handloom made it possible to produce flowered muslin. Emphasis passed then to the delicate lace fillings or sewed muslin which competed for fifty years and more with the hand-made lace of England and France. It was in this line that Scotland continued to be represented in delicate dress fabrics till near the end of the century, although the market contracted slowly until sewed muslin was no longer used for ladies' dresses, but continued in vogue for babies' christening robes, insertions and trimmings. (Print 2, p.214) Glasgow remained the centre of the trade, but after 1830 domestic workers in Ireland began to supply most of the cloth.<sup>(10)</sup> The biggest foreign market for the goods was the U.S.A., and the trade continued to grow until the 1857 crisis in America and the collapse of the Western Bank in Glasgow, which had financed many of the major firms in the business.<sup>(11)</sup> This specialised trade never recovered from the setback and the machine-made dress lace of England and France and the machine embroidery of Switzerland replaced it in fashion.

Within the Irvine Valley the effects of this collapse were remarkably slight because the workers had been changing steadily to new products. By that date the handlooms of the district had been fully converted to jacquard fabrics and lappets and fewer looms remained working on plain muslins. Moreover, fashion demanded heavier goods, and muslin lost popularity even as summer wear. Linens and heavy cottons which could accept richer colouring came into favour and, with woollen fabrics in winter, slowly forced the fancy muslin trade of Glasgow out of existence. The heavier fabrics which were suitable for printing and dyeing were produced/

(10) Bremner op.cit.p.307.

After 1837 the lithographic press cheapened the product, and opened up a wider market in Europe and America, by dispensing with the laborious process of block printing the designs by hand.

(11.) "W.S." 18th April 1922.

"The residents of the Irvine Valley were almost entirely out of the list of unfortunates. Ayrshire shareholders were numerous and the county town especially suffered."

produced on the power loom, and the recently introduced aniline dyes provided the dark rich colours, shades of purple and red, which were becoming popular. Linen and wool could take these new colours, as could silk, and therefore satin and brocade returned to favour.

Long before these fashion changes reduced the mass demand for dress muslin, and the power loom had monopolised the heavier cottons, Newmilns, Galston and Darvel had changed the emphasis of their handloom production to muslin textile furnishings. Plain muslins for embroidery continued to be made, but after 1857 this line diminished until only negligible quantities were worked.<sup>(12)</sup> Even at the height of the trade in muslin for apparel some of the goods produced in the district were for bed curtains. The four-poster beds of the rich were draped with curtains and the set-in beds of ordinary homes had curtains which pulled across to give privacy in heavily over-crowded houses. In 1835 Baines noted that "the peasant's cottage may, at this day with good management, have as handsome furniture for beds, windows, and tables, as the house of a substantial tradesman sixty years since." <sup>(13)</sup>

As early as the 1830s bobbin net from Nottingham, figured by lace runners,<sup>(14)</sup> was commonly used as textile furnishings, and by the 1840s the handloom products of the Irvine Valley had followed suit with book muslin and leno curtains on which the jacquard machine had woven beautiful floral patterns. After suffering as severely from the depression of the 1830s as other districts, the transfer from dress fabrics to furnishings saved the Irvine Valley from the fate of those who saw their livelihood disappear through the vicissitudes occasioned by a change in fashion or the encroachment of the power loom on their special fabric.

## II./

- (12) Rev. David Landsborough, "Contributions to Local History." p.76. "The tambouring frame occupying a considerable portion of her little garret, is now a relic of the past - the only one I see [in 1873] is in Kilmarnock, and it may go too, for Mrs. Watson has had no work for some time."
- (13) E. Baines "The History of the Cotton Manufacture in Great Britain." 1835. p.358.
- (14) Women lace runners figured the cloth by passing their needles through the meshes of the lace.

Technical Improvements.

Although Edmund Cartwright had patented his power loom in 1787, it was not until half-way through the first decade of the 19th century that it had been sufficiently improved to allow it to be put to commercial use. By 1813 there were 234 at work in Finlay's factory at Catrine, but there were still only 1,500 in operation in the whole of Scotland, working on linens and cottons and confined to fifteen shops attached to spinning factories.<sup>(15)</sup> As late as 1833 it was admitted that the handloom weaver could "work a great many things which it would not be the interest of any power loom manufacturer to make, especially all the finest goods."<sup>(16)</sup> At this stage technical problems intervened to save the most skilled craftsmen from a complete loss of livelihood. In the production of figured work the early power loom used a system of heddles with the motion governed by a dobby and not a jacquard. This was because the difficulties of installing and perfecting jacquard machines on power looms proved insurmountable until well into the second half of the 19th century, and the cost was prohibitive until the final quarter of the century. Nevertheless as Table 5 shows there was a rapid expansion of the power loom in Scotland.

Table 5

Numbers of Power Looms in  
Scotland.

|      |    |    |    |        |
|------|----|----|----|--------|
| 1820 | .. | .. | .. | 2,000  |
| 1829 | .. | .. | .. | 10,000 |
| 1845 | .. | .. | .. | 22,300 |

(Henry Hamilton "The Industrial Revolution in Scotland" p.141)

However these were plain power looms making all types of plain cotton fabrics such as ginghams, calicoes, blue and white checks and striped goods, and after 1835 the progress of the power loom into the field of fancy cloths continued to be slow. In/

(15) H. Hamilton "The Industrial Revolution in Scotland." 1966, p.140.

(16) For details of technical advance on the handloom vid. Appendix I pp.180 - 191.  
Ibid. p.141.

In 1830, the power looms were working only four leaved tweels, and by 1840, sixteen leaves.<sup>(17)</sup> It was not till the 1880's that the looms were capable of a sufficiently wide range of work to enable manufacturers to cut costs and prices, and thus undermine the market for the handloom product. The jacquard power looms of the 1880's eventually were adapted to working the finest goods, by employing automatic stopping when the weft broke, and picking from five or six different shuttles with a regularity of shots which was mechanically determined.<sup>(18)</sup>

The last refuge of highly skilled and intricate handloom work crumbled before these advances. In Strathaven the silk weavers' circumstances followed those of the shawl makers of Paisley a decade earlier. The weavers held meetings to consider all possible solutions, ranging from co-operative selling of their goods direct to their markets in the East to the abandonment of their traditional craft, and its replacement by lace factories like their neighbours in the Irvine Valley.<sup>(19)</sup> In spite of these proposed schemes the trade continued to decline, and the survivors were forced into coarser work in the making of tapestry bedmats. A Strathaven correspondent in the "Hamilton Advertiser" had claimed that the power-loom could not compete with the handloom in swivel goods,<sup>(20)</sup> but between 1875 and 1881 low wages and lack of continuous orders in the finer lines drove handloom/

(17) "Hamilton Advertiser" 18th June, 1881. Letter from J. Campbell. "In 1831, 51 years ago, when I was an apprentice at Dunn's of Duntocher, there were some four leaf tweels set agoing. Some of the tenters had been saying that eight leaves might be wrought on power looms yet. I myself often saw handweavers laugh at such a ridiculous idea. Ten years afterwards in 1840 I was working as a charge hand of power looms at Kerr and Gilmours factory, Townhead, Glasgow and every loom in my charge was working sixteen leaf tweels."

(18) "Hamilton Advertiser" 4th June, 1881.

(19) "Hamilton Advertiser" 11th June, 1881.

(20) "Hamilton Advertiser" 2nd July, 1881. John Fleming a Strathaven weaver challenged those who were championing the power loom to produce "a double decker pronged swivel, on an organzine silk warp with damask figure and turkey gauze ground." No-one accepted.

handloom operatives into the range of products which were produced on power looms. This was a vulnerable position, for it was only possible for handlooms to work these fabrics during booms, when the power loom factories could not quickly cope with large orders.

In the Irvine Valley a similar threat was directed against the product of the district, as lappet work, a staple cloth of the area, was one of the first to be copied by the power loom. Owing to the limitations of the lappet wheel, designs were usually a simple repeat, and as with the Strathaven silk trade, the final severe depression for the handloom weavers of the three towns came in 1881. In that period stocks of goods remained high in the manufacturers' warehouses, new patterns were not forthcoming and prices careered downwards.<sup>(21)</sup> The year 1881 was clearly the watershed. In 1882 an improvement in demand occurred, and men were required for all classes of lenos, but the number of weavers coming forward was limited. When large orders arrived and prices advanced these did "not have much effect in inducing men to give up the steady wage of the mill for the precarious chance of the handloom," and it was felt that manufacturers had "starved out many of the workers and forced them to seek other fields."<sup>(22)</sup> These events came quickly on top of the depression of the mid 1870s from which production had only partially recovered, and by 1886, when American demand again advanced, handloom weavers were in increasingly short supply.

The circumstances of the handloom weavers in the Irvine Valley at the end of the 19th century were little different from those in other districts at earlier periods. Machine production had cheapened the product and in many cases vulgarised it. There is no doubt that during this period the handloom was capable of types of figured work beyond the capacity of the power loom. But since its introduction the handloom weavers had striven to keep ahead by turning to more complex and decorative work, only to be overtaken by cheap power woven alternatives./

(21) "W.S." 20th August, 1881.

(22) "W.S." 22nd April, 1882.

alternatives. In every field mechanisation was ousting hand-made products. It was near the end of the day for hand-made lace, hand-thrown pottery, blown glass, sculpted masonry, individual coachwork and many other traditional skills and cheap as these were they could not challenge the price of similar articles produced by the infinite and exact duplication of the machine. It is against this background that the textile workers of the Irvine Valley embarked on yet another specialism which was to save them from imminent collapse and carry the district forward to the present day.

I.

Ayrshire Lenos

Between 1838 and 1872 the traditional handloom trade of the Irvine Valley withstood the decline experienced in other areas, and the circumstances permitting this also enabled the handloom weavers to grasp the opportunity to transfer to power-loom madras and lace production at the end of that period.

The first factor in the survival of handloom work in the district arose from the speciality goods produced. Muslin curtains had been made on handlooms since cotton gauze was devised at the end of the 18th century and, following the introduction of lappet and jacquard looms to the Irvine Valley, figured curtain fabrics became the principal weaving product, until by the 1850s "book and leno curtains were the order of the day."<sup>(1)</sup> The development of this muslin furnishing trade did not experience serious competition from machine-made lace curtains for many years. Even after the invention of the lace curtain machine in 1846, prices did not fall quickly enough to encourage the growth of a mass market, and at the Great Exhibition in 1851, first quality store curtains, five yards by two still cost as much as 30/- per pair.<sup>(2)</sup>

Moreover, even embroidery machines, in production from the 1840s, were not a threat to handloom muslin curtain manufacturers. The machines were incapable of working full designs, and as Victoria's reign advanced, the demand for complexity and crowded detail increased beyond the technical capacity of all looms other than the harness loom whether operated by drawboy or jacquard. With these looms too the development of design was impeded by the primitive clipping methods still in use in the 1840s. The large shears employed for this work were inadequate if the design demanded that the floated threads cross only two or three warp ends, and these restrictions were not overcome till after the invention of the clipping machine which sheared off floated threads in the style of a lawnmower cutting grass, /

(1) "W.S." 31st August 1894.

(2) The Scottish Lace Furnishing Manufacturers' Association, Records. "The British Lace Furnishing Industry." Unpublished Paper 1955.

grass, and cropped fine enough to bring up the pattern even on the shorn and reverse side in the clearest detail. (Print 8, p.217).

With the installation of the jacquard, the simple patterns formerly produced by the weaver himself were replaced by a new and wider range of design, and the development of the clipping machine on top of this encouraged more and more workmen to adopt the sketching and drafting of designs as their full-time occupation. By the mid-1850s two water-powered clipping mills were in operation in the Irvine Valley (V. Maps 2 and 3 on pages 15 and 16) finishing the cloth of all the weavers in the district, work formerly done by hundreds of women and girls. <sup>(3)</sup>

Another factor in the survival of the cotton industry in the Irvine Valley was the arrival from Kilmarnock of a branch line of the Glasgow and South Western Railway Co., first in 1848 at Galston and then in 1850 at Newmilns. Communications between the Glasgow manufacturers and the agents in the three towns improved and neutralized any tendency towards a decline in weaving which might have occurred through lack of adequate transport of goods to the wholesalers in competition with other weaving centres.

The combination of these comparative advantages of specialized product, technical complexities, price trends and communication developments, resulted in the continuation of an integrated and thriving handloom weaving industry, and for a period of thirty-five years from 1838 there was "a steady good trade." <sup>(4)</sup> This was reflected in the growth in numbers of handloom weavers in Newmilns from 550 in 1842 <sup>(5)</sup> to 952 in 1872, and in Darvel from 328 to 633. <sup>(6)</sup> For the first time since the end of the Napoleonic Wars, all branches of the trade and its suppliers were in a position to make substantial savings and,

while/  
(3.) In the early 1840s there were 230 female clippers employed in Newmilns and 189 in Darvel. Vid. "N.S.A." Vol.5, p.850.

(4.) "W.S." 19th March, 1886.

(5.) "N.S.A." Parish of Loudoun, p.350.

(6.) "W.S." 19th March, 1886. The number of power looms in Scotland rose from 17,721 in 1835 to around 67,000 in 1881. Vid. also Table 13, p.160.

while many weavers built new houses incorporating weaving shops, the agents on their commission were certain of healthy profits.<sup>(7)</sup>

During these years entrepreneurs, who were to develop the new lace industry, emerged from the ranks of the weavers and agents. The exception was Joseph Hood who had begun building jacquard looms in 1838.<sup>(8)</sup> The success of this undertaking enabled him in 1862 to expand his interests, to erect and fit out a handloom "factory" in Newmilns, and in 1864 in partnership with weaving agents, Hugh Morton and James Wilson, he established a power-loom factory in Newmilns for the production of wincey, using orthodox Lancashire power-loom driven by a steam engine.<sup>(9)</sup>

This diverged from the normal arrangements, for book and leno curtains were the foundation of prosperity in the Irvine Valley. Thus when the traditional products of the three towns came under attack from steam-driven looms in the 1870s and 1880s it might have been possible for the wincey factory of Hood and Morton/

- (7) Dr. Norman Macleod, Loudoun parish minister states that the maximum wage for a weaver was 8/- per week in 1842. This had become a minimum by 1844 rising to 14/- according to Andrew Lyon, weaver in Darvel. ("W.S." 22nd April, 1887). An agent had an average of 200 weavers working for him thus on a basis of five per cent of their wages alone, disregarding his commission on pirn-winding, clipping and other outlays by the manufacturers he could be sure of £4 per week. Agents also had looms working in his own premises under his own or his family's operation which would bring in additional income.
- (8) Between 1838 and the year of his death in 1893, in addition to perfecting the jacquard for use on the handloom, Joseph Hood invented a twining machine and a pirn-filling machine and numerous appliances for the loom. In 1884 he patented a machine for twisting yarn in chenille manufacture (Patent AD 1884 No. 16,549). Long before the lace loom was introduced he was the master mechanic of the district with many ingenious machines unique to his engineering shop which he did not trouble to patent or manufacture, being overloaded with business, literary, antiquarian, political, social and religious interests.  
V. also "Scottish Notes and Queries" 1st Series, Vol. VI. 1892. No. 5, p. 67.
- (9) "W.S." 13th October, 1893.

Morton to go more easily over to power-loom muslin and madras,<sup>(10)</sup> as the demand for wincey also contracted, but it is doubtful if weaving could have remained in the district except on a diminished scale, if it had not been consolidated round the backbone of a thriving machine-lace industry.<sup>(11)</sup>

## II

### Nottingham Lace

Contemporaneously with Hood's ventures and the growth of the Ayrshire muslin curtain trade the Nottingham machine-lace industry had been developing. A number of inventions in the early part of the century had made possible the production of all kinds of lace by machine (v. Appendix 2 pp. 192 to 199), and the stocking makers of Nottingham transferred quickly into the lace industry and became lace twisthands. Simultaneously the framemakers were replaced by builders of iron lace machines, and the latter became progressively an independent specialist trade and as such a potential danger, through foreign sales of machinery, to the Nottingham lace manufacturers.

The improvement of the lace machines invented by Heathcoat in 1808 and by Levers in 1813 eclipsed the domestic system of lace manufacture. The greater cost of machinery and the prerequisite of large premises and stable foundations could not be met by the individual twisthand in his home. For increased scale in machinery and production, factory organization was required, and the/

- (10) In the 1870s power-loom factories in Glasgow and Lancashire were able to produce simple lappets and muslins similar to handloom leno fabrics, and in the 1880s the power-loom was revolutionised by a patent which allowed colour changes to be made, linked to the jacquard machine, fashioning goods to be known as madras.
- (11) There was an example of power-loom muslin weaving in the district, before the lace trade began. James Wilson, one of the original partners in the wincey factory, acquired the old woollen mill at Greenhead, Newmilns and in 1870 began manufacturing on looms driven by water.

the factory system developed rapidly after 1820.<sup>(12)</sup>

This does not mean that the majority of operatives were at once employed in large factories. Machine builders made hire-purchase facilities available so that workmen with very little capital could become machine-holders; however, in a fashion industry the appearance of so many small employers did not encourage commercial stability.

The large numbers of machine-holders operating one or two machines led to over production and in difficult times they were the first to cut prices. In a newly established factory system they also helped to direct the hostility of workmen against the latest machines. Between 1811 and 1817 recurrent depressions led to Luddism among the workers who owned old warp knitting machines and others who still rented a frame in their homes or in small factories. Heathcoat who had invented the first lace machine suffered an attack on his factory in 1816 which caused its removal to Tiverton in Devon, and strikes against rate cutting were said to have been responsible for the emigration to Rouen in 1821 of Levers, whose machines produced all types of fancy lace.

The Nottingham based machine-lace industry therefore had its first experience of dispersal at this early date. While workmen in Nottingham managed to maintain their numbers in spite of the threat of labour saving machines they were to find it more difficult to do so against the competition of machines at a distance, and the industry was soon forced into competition both at home and abroad. The first collapse in the trade occurred in 1825, and before that it was said that twisthands could earn up to £10 per week, but from that date until the introduction of the jacquard machine in 1835 wages declined to 8/- per week,<sup>(13)</sup> a rate similar to that received by the best handloom weavers at that time in the Irvine Valley. The individual thread selection of the jacquard machine permitted an unlimited variety of patterns to be produced, and this stimulated business and introduced the art of lace design as a separate trade, offering new employment/

(12) Norman H. Guthbert, "The Lace Makers Society" 1960, p.8.

(13) Ibid. p. 270.

employment to many hands. This was fortunate, for even the early power-driven machines could produce a pair of curtains four yards long in two hours and enormously enlarged production over what was possible by hand. This in turn allowed some reduction in both costs and prices and increased the potential market for curtains.

The market was further extended in Britain when the production of moderately priced window furnishings coincided with the lowering of window tax in 1823, and the expansion of production built upon its final abolition in 1851. By this time the ease of obtaining cheap coal had overcome the problem of poor heating, even in working class homes, and numerous large windows with plenty of glass were at last practicable. Direct sunlight, however, was still undesirable on the fugitive colours of dyes in the interior coverings and carpets of the period, - lace broke the strength of the sun, but allowed sufficient light. In combination with the window blind the lace curtain permitted illumination by day and protected the privacy of the Victorian family in the evening.

From the invention of the first lace machine in 1808 until 1873 lace making of all kinds flourished in Nottingham, encompassing in its good fortune all the trades connected with it. Lace machines were continually being improved and during the long sustained expansion of the trade over this period the East Midlands and Devon areas absorbed the bulk of the new machines and gave proportionately large orders for repairs and renovations. After 1850 dress lace machines were also exported freely to a number of European countries, chiefly France.<sup>(14)</sup> When business began to falter in 1873 orders for new machines dwindled in the traditional areas, and while the lace makers could limit production, the Nottingham machine builders, making capital goods, were less fortunate. In a new and quickly growing industry they did not welcome a fallow period and naturally accepted, first clandestinely and then openly, the prospect of further expansion in a new lace producing district which soon after appeared in Ayrshire where the lace curtain trade, requiring the largest machines, was established.

### III./

(14) Ibid. p.26.

### III.

#### The Nottingham Unions.

Between 1850 and 1873 the various trade unions in Nottingham had fully adopted piece-rates on a system which incorporated variations of payments for different classes of work, and had successfully fought for wage increases. After 1873 profit margins contracted bringing pressure on costs and concomitantly on wages. This trend was strenuously resisted by the unions and there was a strike in that year by the Levers' Lace Trade Society against a reduction awarded by a referee. The strike lasted for some months, involving the majority of the Nottingham twisthands, and was eventually lost.<sup>(15)</sup>

With intensified competition in the context of falling prices on the one hand, and the inflexible attitudes of the unions on the other, many firms in Nottingham moved out of the city to towns and villages in the neighbourhood, and new firms joined them in these centres. Building sites were cheaper there, and away from the power of the unions up to twelve hours could be worked daily at basic rates and there were no restrictions on persons entering the trade. Nottingham lost its pre-eminence in the manufacture of Levers' lace, but at this stage in the further dispersal of the city's lace industry the move was confined to places in the vicinity within easy radius of its ancillary trades and lace market.

The expectation of high profits from the production of luxury lace goods waned. A change in fashion in the mid-Victorian period had a harmful effect on dress lace as women took to richer, heavier fabrics and light laces and muslins were reduced in use to cuffs and collars, frills and hems. Capital did not flow so readily into the lace industry as Nottingham continued to expand on the basis of newly introduced industries offering a better return. Meanwhile, competition increased abroad and sales of foreign lace grew in Britain and in its traditional markets overseas. The depressed state of the French economy after the Franco-Prussian War made that country a poor outlet for English lace, but at the same time the French lace industry quickly expanded and added to Nottingham's difficulties.<sup>(16)</sup> Indeed France/

(15) Ibid. p.45.

(16) S.B.Saul "Studies in British Overseas Trade 1870-1914". 1960. P.148.

France emerged as Nottingham's strongest rival.

Unemployment in the trade sharpened industrial unrest and on August 1st 1874 the first meeting was held of the Amalgamated Society of Operative Lace Makers which incorporated the three main sections of the trade - Levers, curtain and plain net. (17) The draining away of the city's lace industry has subsequently been attributed to the unassailable power of this union. Although partly true in that its strength was a very considerable factor in maintaining high wage rates for its members, yet by 1874-75 it had proved incapable of preventing the outflow of firms and operatives from the original centre. After its formation, the Lacemakers' Society spent much time and money trying to establish its authority in the new areas of production, but was successful only in the Nottinghamshire and Derbyshire districts.

Once the lace firms, working outside the sphere of influence of the union, were able to attack the problem of costs by operating freely on all the factors of production, a new era of high profitability was achieved, particularly between the years 1879-1885. This attracted capital into new firms and enabled existing ones to improve their position after the lean period from 1873, but by this time Nottingham's monopoly was completely broken in all sections of the trade and the firms in the city had to compete with the growing companies which were securely established elsewhere in England, in Scotland and in France.

#### IV

##### Ayrshire Lace.

After the early work of Joseph Hood, Alexander Morton of Darvel ensured the continued prosperity of the Irvine Valley as a textile centre. He had started as a handloom weaver, but in 1867 acquired his brother-in-law's weaving agency when he died. Immediately exhibiting outstanding business ability in this line, he then decided to continue as an agent and accepted new orders from Glasgow, making his first effective contribution to the trade by instructing his weavers to use warp-twist weft in making their curtains.

This method imparted more crispness, better shape and durability to the fabric and made the goods the most attractive of their/

(17) Cuthbert, op.cit., p.48.

their type on the market. His next step was to attempt to supplant the Glasgow manufacturers. He resolved to dress and finish his own goods and to open direct outlets through wholesale warehouses in the large industrial centres in England. Throughout his career Morton took a keen interest in the appearance of his goods. He improved the leno curtain and raised it beyond traditional forms, giving it, while the power loom was pressing hard on the handloom product, an additional term of life which lasted into the downswing in prices which affected the economic life of the country after 1873.

He travelled into England moving from one important centre of population to another from Carlisle to Plymouth and finally made an attempt to win over the London houses. He had considerable success with the leading firms at that time and gained large orders from Swan & Edgar, Maple & Co., and Schoolbred's. Goods supplied to the last company at one stage reached the value of £2,000 over a period of six months.<sup>(18)</sup> From the result of these efforts Morton bought plots of land in Darvel as security, and further extended his business as a muslin manufacturer.

The prosperity of the leno curtain trade was first hit in 1872, and from that time increasing numbers of loomsteads lay empty and handloom weavers left to find work in textile centres in the Borders or at Deanston, while others became railway workers or policemen.<sup>(19)</sup> In a speech on New Year's Day 1873, Morton forecast the end of the handloom trade within a decade. Events proved him right, for in 1882 the local newspaper enquired,

"Where are now the groups of weavers who used to congregate in the streets after mealtimes ten years ago and hotly discuss questions, local and national, political or ecclesiastical? All are nearly gone and only a few are still contriving to keep alive a dying trade. Looms and jacquard machines are waiting in their turn, crowded in garrets, or exposed outside to/

(18) William W. Morton, "Alexander Morton" Ed. 1960, p. 42. On one occasion he received an order for 7,000 pairs of leno curtains which he placed with over 200 weavers in the town.

(19) John Woodburn, "A History of Darvel" 1967, pp. 38-39. Quoting the minutes of the Weaving and Beaming Society in the mid-1870s, only 226 had webs out of a total of 572 working looms.

to the weather, to be burned." (20)

But if the handloom weavers were going, textiles did not perish with them. In the intervening period the industry of the district had been transformed. Handloom lenos had continued to decline, but in their place a machine-lace industry was developing, and men who had emigrated were returning to their homes. In the same year as he made his prophetic speech, Morton visited Nottingham in an endeavour to see lace machinery at work, but was frustrated in his efforts by manufacturers who refused to admit him to their factories. Fortunately a year later he was able to inspect a Levers' lace machine at an industrial exhibition at South Kensington and learned as much as he could from the twisthand who operated it. On his return to Nottingham the same twisthand acted as intermediary between Morton and the firm of Sharman and Tilson who arranged for him to see their machines in operation and offered to sell him an eleven point machine, 216" wide, for £1,050. (21) On his return to Darvel he persuaded an enlarged partnership of Alexander Morton & Co. to accept delivery. A deposit of £100 was lodged and the first lace curtain machine arrived in Darvel in October, 1875.

After early vicissitudes in installing and operating it, cloth was finally unrolled from its beam in February 1876 and very soon after it was working from 12 p.m. on Sundays to 10 p.m. on Saturdays on a three shift system producing 100 pairs of curtains a week. (22) Local handloom weavers could see for themselves the threat to their livelihood. Within a year two more machines were added and by 1886 a new factory had been built to hold twenty-four. Following rapidly on the first introduction, the/

(20) "W.S." 18th March, 1882.

(21) Morton op.cit.p.25.

(22) Uncertain of the Irvine Valley as a large potential market, and knowing that their established customers in Nottingham would be hostile to sales to new competitors north of the border, the machine builders threw the Scottish owners on to their own resources and on those of their local mechanics. The machine was erected in part of the clipping mill at the eastern end of the village where it was driven by water power from a mill lade. This proved unsatisfactory and later that year a second-hand steam engine was bought from a coal pit in Galston.

the Newmilns firm of Hood, Morton, Cleland & Co. abandoned the making of winceys and introduced lace machines in 1876.<sup>(23)</sup> The new industry flourished from the outset and by 1881 one more firm had entered the trade in Darvel, four more in Newmilns and one had started in Galston.<sup>(24)</sup> These firms bought the new wider machines and installed them in large factories specially designed to accommodate them and all the subsidiary departments. Although the textile trades at that time languished, there was a boom in lace furnishings and the new Scottish lace industry stimulated a surge in demand for the fabric.

One of Alexander Morton's many talents was an eye for design. Just as he had successfully broken into the manufacturing side of the leno trade through a careful choice of designs, in lace he introduced a bold flower pattern characteristic of French styles which he had made a special trip to Lille to study. When this motif was transferred to the product of the Scottish manufacturers it had an immediate effect on the market.<sup>(25)</sup> If any stimulus to investment in the industry was required, the altered circumstances of Alexander Morton would have been sufficient. Apart from the ground bought up in Darvel, he also acquired a large area of land to the west of the town and, partnered by his brother, had erected on it by 1880 a turreted mansion the cost of which would have built and fitted out another large factory.<sup>(26)</sup> His meteoric career and conspicuous good fortune produced importunate rivals and promoted a rapid expansion of the new enterprise in the district.

Some evidence for the revival can be seen from a case in the Court of Session in 1893 describing conditions in the district in the late 1870s. The case involved a Newmilns weaver who brought a right-of-way action, supported by funds raised in the community, against Lord Donnington of the Loudoun estate. The landowner/

- (23) This was the first time a loom mechanic from Nottingham installed new machines.
- (24) More money was available for investment in Newmilns, and it was not until 1896 that the railway was extended to Darvel. Before that date all building materials and heavy lace machinery had to be moved by cart from the railhead at Newmilns.
- (25) Morton op.cit.p.28.
- (26) "W.S." 11th Sept.1880. Gowanbank Villa completed. "It shows what can be attained by a sober,dilligent and intelligent perseverance in the path of business duties."

landowner had erected barriers across a road through his policies which had formed part of a favourite walk by the weavers and their families. Over a long period of years obstacles had been built only to be torn down again, but a particularly strong barricade had been set in position in 1878. A weaver named Orr told how it remained to obstruct the road till 1886. The reason it had stood so long was that "trade was dull in Newmilns during these years, and the majority of the people had left the place."<sup>(27)</sup>

Hugh Smith the pursuer, a weaver in Newmilns, said that when he "came back from Kilmarnock in 1881 he was sorry to see fences on the road, but he had difficulty in finding people to assist in putting them down, owing to the dull trade and the younger people all being away, and consequently the obstructions were not interfered with until 1886."

The renewed resentment felt towards the barricades raised by their feudal superior marked the return of self-respect and a healthy belligerence in the community, following the introduction of the lace trade. At the time of the Census of 1881, and before then, many weavers had returned home.<sup>(28)</sup> Local people were being urged to convert their loom-steads into dwellings,<sup>(29)</sup> and the new industry had caused such a stir in the retail trade that the product was beginning to be described in the market as "Ayrshire Lace."<sup>(30)</sup> In 1880 there were still only 30 machines in operation, yet, by utilizing three shifts continuously throughout the week, except Sunday, production soared and gave employment to over/

(27) Ibid. 26th May, 1893.

(28) Ibid. 22nd April, 1882. The Census of 1881 still showed a decrease for all three towns over 1871, but an increase from the lowest point between these dates. Newmilns handloom weavers had been reduced in numbers from 952 in 1872 to 200 in 1881 when prices reached rock bottom, provoking the last handloom weavers' strike and the final large exodus from the trade. In the following year when prices again improved the number remaining at the looms was so reduced that new orders for leno goods could not be met.

(29) Ibid. 4th Sept., 1880.

(30) Ibid. 4th June, 1881.

over 200 workpeople.<sup>(31.)</sup>

V.

Consolidation of the New Industry.

This development elicited a violent reaction in Nottingham, where a newspaper article tried to undermine the Scottish industry. Although a lapse in the formation of new companies occurred between 1882 and 1886,<sup>(32)</sup> confidence had returned to the people of the Irvine Valley in their business ability and in the product of their industry, and they felt that the recession which appeared in 1883, following a new American tariff of forty per cent ad valorem, was more to contend with than Nottingham with its long established monopoly and its misrepresentation of the quality of lace from other districts.

In the Irvine Valley recovery was accomplished in the succeeding year and by 1886 throughout the summer and into October the industry was brisk with large home and American orders.<sup>(33)</sup> The "Weekly Supplement" announcing the completion of two new factories in Darvel commented that the Nottingham interviewer who had maligned the local industry had "notably failed in destroying the Ayrshire lace trade by his report, so rich with romance and personal incident."<sup>(34)</sup>

Lace workers' wages at this point were the deciding influence on costs and prices in the struggle for markets. When the first lace machine arrived the average wage of handloom weavers in the Irvine Valley, when fully employed, was 15/- per week, while the twisthands in Nottingham were still the cream of/

(31) Ibid. 4th Sept., 1880.

(32) V. App. 3 pp. 200 to 205

(33) American tariffs proved largely ineffective against Scottish lace exports. Vid. below, Chapter 6. pp. 106-110.

(34) "W.S." 26th February, 1886.

of the labour market and lace maintained its dominant position in the city. In contrast to Nottingham where new industries emerged,<sup>(35)</sup> no other employment was available in the Irvine Valley away from the handloom except in the coal pits around Galston, but few of the weavers entered them even after long periods without a web, as the stigma attached to that occupation in Scotland was still clear in the minds of the working classes.<sup>(36)</sup> In Newmilns, Darvel and Galston there existed in the late 1870s a mass of unoccupied textile workers, for it was not only the handloom weaver who was skilled in curtain making. His whole family might readily adapt to the factory production of lace. All the men were thoroughly grounded in the jacquard machine and the entire family knew how floral designs should appear on cloth. They had eyes and fingers attuned to work with cotton threads, either through working or helping at the handloom, or in the case of wives and daughters at pirn filling.

As the Scottish industry began to accelerate in growth through its wider market for cheaper goods, Nottingham could not long resist the pressure to reduce prices. In 1885, Nottingham twisthands had to accept a fifteen per cent decrease but a developing slump worsened into 1886 when the Lacemakers' Society made a stand and "declined the masters' proposals of a reduction of thirty three and one third per cent in the rate of wages."<sup>(37)</sup> The reason for the invasion of the Nottingham trade by the Scots manufacturers was clear to them as early as 1880.

"Until of late years these light, airy fabrics were manufactured only in Nottingham, Leno and Book curtains principally in Ayrshire. The upper ten [the leaders of fashion] showed their preference for the lace, so that lenos were at a discount, while the lace offered a good margin to the manufacturer. In these circumstances it could not be expected that Nottingham could long hold a monopoly in the market." <sup>(38)</sup>

The long struggle between Ayrshire and Nottingham had begun for/

(35) John Player & Co., (Estab. 1877); the Raleigh Cycle Company, (Estab. 1887); and Boots Pure Drug Company, (Estab. 1888) all became large employers of labour by the end of the 19th century.

(36) "If you cannae get a man, get a miner," was common advice given to the daughters of the handloom weavers of the Irvine Valley.

(37) "W.S." 29th Oct., 1886.

(38) Ibid. 23rd Oct., 1880

for domination in the curtain trade. The Ayrshire manufacturers had no doubts about their ability to make inroads into the English markets, and the Scots facing fewer handicaps to expansion quickly drove ahead. They had large resources of skilled labour, which was unorganized and therefore amenable to the introduction of more efficient methods. They did not have to depend on uncertain credit facilities, as ample savings, waiting to be tapped, were locked up in the district, and investment of these savings provided suitable premises and modern machinery.

Nottingham on the other hand suffered from an increasingly competitive labour market and had difficulty overcoming the restrictions placed on improving the flow of production by a hostile and durable union. Management-labour relations were at a low ebb after a prolonged period of bitter disputes which were exacerbated by the pressures of growing competition. Nottingham passed through the great days of its lace trade and many there turned to the opportunities available in the new fields of enterprise.

In the Irvine Valley 110 lace curtain machines had been installed by 1886 and the district quickly recovered from the slow death which usually accompanied the decline of a traditional industry. The three towns directed all their energies into the new industry and became completely absorbed in it, acquiring a pride in the product of the power looms as great as that earlier possessed for that of the handlooms, until they created and maintained an ascendancy over the parent district in efficiency and productive capacity.

I.

The End of the Handloom Weaving Trades and Societies.

The people of the three towns of the Irvine Valley formed a homogeneous society until the lace industry was firmly established at the end of the 19th century. For one hundred years after the introduction of cotton weaving in the 1780s handloom weaving of that product dominated the economy of the district and the weavers and their families who made up the majority of the population were in politics a united body in thought and action.

But it was not until the cotton trade arrived in the district that any purely political feeling crystallized among them. The handloom weavers concentrated in the three villages were until then still a rural adjunct very much taken up with the affairs of their local community and their main interest in broader questions was confined to matters concerning their national church. The cotton trade brought with it a wider commerce in ideas as well as in goods and the influences which had stimulated the late 18th century flowering of Scottish culture in architecture, letters and philosophy may be said to have touched the ordinary people and raised their minds beyond the all-absorbing concerns of the subsistence economy of earlier periods.

From the outbreak of the French Revolution in 1789 a tradition of reformist and radical politics was nurtured in the Irvine Valley on the foundation of an earlier intransigence in attitudes to church and state. The district had been a centre of Covenanting activities. Rebellion against the state had occurred as a desirable course of action when the men of the district defeated Claverhouse at Drumclog in 1679. The Cameronians, the most extreme sect of presbyterians, refused to accept the organization of church affairs after the Revolution of 1688 and many families in the two parishes remained attached to that community.

Throughout the previous century controversy raged over the question of patronage in the Church and everyone in south-west Scotland was nurtured on the aridities of theological argument which did little for their piety but a great deal to improve the scholarship/

scholarship and democratic spirit of the artisans and agricultural labourers. Hostility directed towards the aristocracy who controlled Parliament spread against their nominees in the parish churches and as the population increased in the burghs at the end of the 18th century, so also did the sense of independence of the working people within these burghs from the traditional aristocratic and clerical pressures.

a/ The sympathies of the people of the south-west for the American colonists and the French revolutionaries is widely demonstrated in the work of Burns, but the greatest change came in the speculations of the ordinary people when the works of Tom Paine became available. Fisher's "Marrow of Modern Divinity" and Boston's "Fourfold State", those wells of clear Calvinist doctrine, were abandoned forever and in their place "The Rights of Man" (1787) and "The Age of Reason" (1794-95) were used as the basis of working class political theory over the following half century.

Although a fall in the weavers' income in 1793 helped to exercise their minds and to direct criticism against those considered to be at fault, the improvement in the condition of the people in the second half of the 18th century, with an accompanying increase in literacy and liberation from the power of feudal superiors, encouraged a larger freedom in which every self-supporting artisan reconsidered his place in society and in the polity of the nation. The success of the French Revolution had an overwhelming influence on the thoughts and beliefs of the people. As described and lauded by Paine, ordinary men encountered ideas of how the government of their country might be changed, and their own efforts guided towards that end. Ecclesiastical controversy lost its attraction and politics became the chief mental relaxation of the weavers in particular, whose work and wages at that time allowed them ample leisure for the study and discussion of the foremost topics of the day.

It was then the golden age of handloom weaving, to be recalled during the 19th century with longing for its return and/

and bitterness at its loss.(1) But in 1792 the first serious threat to the weavers' economic position appeared. Just when they were beginning to feel the promise of a future with participation in civic and national affairs, they experienced the first hesitation in the flourishing new cotton industry.(2) Between 1783 and 1792 imports of cotton had increased from under ¼m.lbs. to over 3m.lbs., the greatest amount to be reached for another seven years.(3) In the following year the prices for handloom weaving were halved, but according to the manufacturers of Glasgow and Paisley this did not seriously affect the weavers' income, merely their free time, and in doing so it had beneficial effects in curtailing their political activities. In 1792 "the best weavers, then gained about 4/- per day, but from the low state of the market that now exists the same people work for 2/- per day," and kept their wages at the same level by working twice as long. The manufacturers claimed "that the three idle days were spent in drinking, and in attending meetings of the Reformers or Friends of the People, but that from being obliged to work the whole week they now have no leisure for government mending."(4)

Local societies of the Friends of the People sprang into life following a campaign for political reform by Thomas Muir of Huntershill, a Glasgow advocate. After the initial gathering in October 1792 and the formation of the Glasgow Society, Muir travelled through the west of Scotland to promote similar groups, and included Kilmarnock in his tour.(5) These were immediately/

- (1) "They only wrought three days a week, and those disposed betook themselves to the change house for the next three days of the week. Here a pound was pinned to the partition wall, which when 'melted' was taken down by the landlord, just to be replaced by another." "W.S." 3rd March, 1883.
- (2) Only once before had there been organized disturbances by the weavers. In 1787 the manufacturers reduced prices and the operatives struck work and rioted in Glasgow. The favoured method of dealing with blacklegs was by the "Black Cat" on plain looms, whereby a rock tied to a string was thrown through a window across the warp in the loom and drawn in: With the harness loom the harness was cut down.
- (3) H.Hamilton, "Economic History of Scotland in the 18th Century," pp.412-413.
- (4) Melville of Dunira Papers. "Observations."
- (5) H.W.Meikle, "Scotland and the French Revolution," 1912.p.92.

immediately set up in Kilmarnock, Newmilns, Galston, Darvel,, Kilmaurs and Fenwick, all predominantly weaving towns.<sup>(6)</sup> Very soon activities in these and similar weaving communities were considered the greatest threat to the existing system. Colonel Fullarton commented that it was chiefly in this class

"that every doctrine of subversion has been cherished; and it is only from the same source that the established orders seem to dread any disturbance. When persons of this description, joined by others of distempered minds, insult society with permanent sittings, bulletins, secret committees, municipalities, conventions and tocsins, to which had they proved successful, the Guillotine, in due season, would have been added."<sup>(7)</sup>

Newmilns, Galston and Darvel were represented at the Second General Convention of the Friends of the People at Edinburgh in 1793 by John Wallace, a Galston weaving agent.<sup>(8)</sup> The Darvel Society published a resolution against the war with France, and in Newmilns, Dr. Archibald Lawrie, Minister of Loudoun, and newly placed under the patronage of the family of Loudoun, refused to baptize the weavers' children with the names of the reformers.<sup>(9)</sup>

Although all opposition to the government was suppressed following the trials and transportation of Muir and his associates Palmer, Margarot and Gerrald, who were arrested at the time of the Second General Convention, there was created in the towns of West and Central Scotland, an industrial working class, without the franchise, but with a new sense of power, holding as its principal political tenets, adult manhood suffrage, annual parliaments, equal electoral districts and payment for members. Of this class the weavers were the strongest and most active section. They existed in large numbers in many localities throughout the Lowlands and together formed a large total body of workmen with a community of feelings, ideals and values, which were propagated through the connections of/

(6) Ibid. p.274.

(7) Fullarton, op.cit.,p.87.

(8) Meikle, op.cit.,p.274.

(9) Thomas Johnston,"History of the Working Classes in Scotland," 1920,p.236.

of their nationwide association and the peripatetic nature of the journeymen weavers' employment.<sup>(10)</sup>

In Scotland it might be claimed that they were the original working class in a social and political sense. They were organized as a trade locally and nationally, acting together when necessary, and their politics, although given direction and contained for a while by the leaders of the Friends of the People, went beyond theirs with aims that were democratic and republican, strongly against the war with France and taxation by the government.

The 1793-94 movement for reform was suppressed, but a pattern had been established and attitudes shaped for future political action by the weaving community. The radical outlook of the weavers of the Irvine Valley was henceforth a constant feature which continued unabated throughout the handloom era and beyond, threatening open violence in times of serious economic difficulties, and never again quiescent even during periods of prosperity.

Many of those who had been members of the Society of the Friends of the People went into hiding or sought refuge in England and America, and did not re-emerge in their home district until the beginning of the 19th century.<sup>(11)</sup> Trouble arose again and riots broke out with the passing of the Scots Militia Act in 1797.<sup>(12)</sup> In Strathaven the parish register was forcibly taken from the schoolmaster, and in Galston the Tree of Liberty was re-erected in the midst of a popular demonstration against the new law.<sup>(13)</sup>

Weavers in the three towns were able to evade service while/

(10) Melville of Dunira Papers, "Observations," The cotton manufacturers employed 100,000 persons in the west of Scotland in 1793.

(11) "W.S." 26th March, 1886 and 7th December, 1888.

(12) The people resented compulsory enlistment in a corps established to defend a government which was raising taxes without any reference to them, in order to prosecute a war against France, whose revolutionary principles were generally admired. Men between the ages of nineteen and twenty-three were chosen by ballot, their names being produced from the parish registers by the kirk session clerk, normally the parish schoolmaster.

(13) Meikle op.cit., p.182.

while they enjoyed another long period of economic stability from 1794 to 1807. Although production increased prices were rising and wages remained at a high level. The power loom still had little competitive effect and Britain maintained a lead over all other countries in the scale of its cotton imports and in its organization of production. The weavers in Loudoun and Galston parishes had resisted the compilation of the Militia Roll and had gained exemption through their financial good fortune, but in 1807 the Napoleonic system to prevent trade with the Continent had an adverse effect on production and wages were again reduced by half. It was at this date, after having paid their quota to protect them from personal service, that many in the end were obliged to enlist.<sup>(14)</sup>

One of the enticements to join the militia had been the offer of freedom to set up in a craft in any town on disbandment, and release from payment of customary dues. It proved an empty promise. When the time arrived all statutory trade protection had been breached. The Scottish weavers, finding that they could not enforce their privileges through local associations, joined in one large trade union and collected strike funds as friendly societies, where they had some legal standing.<sup>(15)</sup>

From 1807 until the end of the war the cotton industry went through a period of unstable conditions. The trend in weaving prices was downward, but there were a few peaks caused by speculation. In 1810 new markets opened up in South America when trade started with Portugal's colony of Brazil and Spain's hold on her territories slackened. Then by a pure windfall in 1813, after the battle of Leipzig, a temporary boom was created in European markets by the burning of stores of materials by Napoleon's troops, and for a short time weavers earned an unprecedented 10/- per day.<sup>(16)</sup>

There was little consolation in this, for 1812 had witnessed the planned destruction by the manufacturers of the nationwide/

(14) Diary of John Wallace. 1807.

(15) Chapman op.cit., p.183.

(16) J.H.Greene, "Descriptive Guide to Newmilns and District," 1906. p. 12.

nationwide handloom weavers' union, while the judiciary was powerless and Parliament disinclined to intervene. It had been a year of great distress with the most united and determined attempt ever on the part of the handloom weavers to maintain prices. The depression had begun in 1811 and was severe throughout Britain with Luddite activities in Nottingham and in the north of England. Nearer still, Kirkman Findlay requested cavalry to be at hand at his factory in Catrine, fearing the destruction of his power looms by handloom operatives, <sup>(17)</sup> and in the Irvine Valley trade was at its bleakest, for in Galston John Wallace, agent, recalled that for the first time ever he had received no cash when the carrier returned from Paisley. <sup>(18)</sup>

The Scots handloom weavers claimed that their wages had been reduced by seventy-five per cent since the beginning of the century, <sup>(19)</sup> and appealed to the Justices to have minimum prices fixed under the ancient Statute of Artificers, reaffirmed in the reign of George II, with a recent precedent for the agricultural workers in the action of the magistrates at Speenhamland. The Justices of Lanarkshire who heard the case accepted legal authority in the matter and issued a list of prices, declaring them to be "moderate and reasonable." Their powers were challenged in the Court of Session by a combination of forty manufacturers, but the men's cause was vindicated. However, the decision of the higher court was permissive and not binding. The manufacturers could not be forced to meet the prices and when they refused, the men, who had already spent £3,000 in litigation, struck work. <sup>(20)</sup> Forty thousand weavers were idle between Aberdeen and the Border for a period of six weeks, before their leaders were arrested and convicted under the Combination Acts. <sup>(21)</sup>

The national organization of handloom weavers disintegrated with the exhaustion of its funds and subsequent attempts at resuscitation were never successful. Henceforth local associations were active in their own interests or collaborated with other districts, but from this point onward the inspection of/

(17) H. Hamilton, "The Industrial Revolution in Scotland," p.140. The cotton mill at Strathaven was destroyed on 11th November 1811. Deliberate fire raising was suspected.

(18) Wallace, op.cit., 5th Sept., 1812.

(19) Johnston, op.cit., p.304.

(20) Chapman, op.cit., pp.186-188.

(21) The Statute of Artificers was repealed a year later.

of prices at the beaming sheds was the chief method in the enforcement of fair dealing. The final attempt by the weavers to protect their livelihood by constitutional means was crushed.<sup>(22)</sup>

In the Irvine Valley there was a complete cessation of weaving lasting for seven weeks. A meeting of weavers in Galston schoolhouse "unanimously agreed to stop work till the prices were raised to the rate found by the Justices of Lanarkshire to be reasonable."<sup>(23)</sup> By the end of six weeks a few webs were again being given out, but at the end of the seventh week on 4th January, 1813, the weavers decided to return. The agent Wallace in complete sympathy with the men recorded in his diary the typical resistance of workers in a falling market and stated his own personal feelings of hopelessness about their plight. The weavers had "agreed not to take a web from any manufacturer except at full price. Time will determine whether or not they can make their resolution good."<sup>(24)</sup>

## II.

### Political Resurgence and Defeat.

The handloom weavers lost all remaining faith in an unreformed Parliament and in the existing legal system after the events of 1812-1813, although the cotton trade recovered between 1813 and the end of the war, and improved earnings for a while. The period after Waterloo saw the end of the privileged economic position of the weaver as weaving suffered during the general depression and wages fell to their lowest ever at an average of 5/6d per week.<sup>(25)</sup> Food prices were high as the Corn Laws passed in 1815 maintained a statutory price for wheat./

(22) Chapman op.cit., p.188. Many of the manufacturers supported the men and helped to initiate the court proceedings. The weavers case was argued by the Whig lawyers Jeffrey and Cockburn who described the weavers on this occasion as "the most extensive and peaceable combination of workmen that ever appeared in this part of the kingdom."

(23) Wallace op.cit., 7th November 1812.

(24) Ibid. 4th January, 1813.

(25) Johnston op.cit., p.305.

wheat. A late harvest aggravated the problems caused by low wages at a time of inflation and with the flooding of the labour market with demobilised soldiers the living standard of the weavers collapsed from a high position to a place near the bottom of the scale.<sup>(26)</sup>

The repressive governments of the war years had beaten down all attempts to obtain reforms, but in 1817 a demand for an enquiry into corrupt self-elective Scottish burghs was voted through, although it was quickly suppressed and no legislative step taken until 1833. Among the weavers, political activities began to replace the endeavours of the extinct union and for the men of the Irvine Valley the conversion of William Cobbett to radicalism created a great new influence in their political education which they gladly acknowledged.<sup>(27)</sup>

The Jacobinism of the 1790s and the radical reform movement of the post-war years were in Scotland mainly the accomplishment of the weavers. In Glasgow and Paisley they constituted the largest trades and numerous small towns and villages were practically populated by weaving families. By 1817 the older weavers were conscious of a decline in social status and the young men attracted into the trade in the good days felt cheated.

In the worst times to follow no other occupation suffered as much as the weavers and having once been regarded as independent workmen, intelligent, literate and respected they became during the periods of greatest political agitation natural followers of Cobbett and advocates of his political remedies.

Cobbett appealed to all those small farmers and artisans who had known a degree of freedom in their livelihood and were in danger of being absorbed in factories or of becoming landless labourers./

(26) L.C.Wright, "Scottish Chartism," 1953, p.216.

(27) William Cobbett, "Tour in Scotland," 1833, p.152. "Your unrivalled writings have kindled in us an attachment for you, which nothing but the hand of time can extinguish. Your manly and unswerving advocacy of the rights and usefulness of the working classes, has called, and will call forth, the thanks and acclamations of a grateful people."

labourers. In his "Address to the Journeymen and Labourers" in the "Political Register" of 2nd November, 1816, his approach gave working men a renewed sense of their own dignity and value. It condemned the population theories of Malthus and the suggestion that the unemployed should emigrate. Most of all it called for a reformed parliament and an end to corruption. After Paine the writings of Cobbett had the most powerful effect on the opinions of the weavers of the district between the French Revolution and the passing of the Reform Bill.<sup>(28)</sup>

Cobbett, however, was out of Britain between March, 1817, and the end of 1819. This period started with the suspension of Habeas Corpus in England and the passage of the Six Acts against seditious writing, the holding of assemblies and the possession of arms; and it ended with the Battle of Waterloo. It was a time of unparalled suffering among the people and the renewal of demands for radical reform. A large public meeting was held in Kilmarnock and a weaver named McLaren was brought to trial for making a violent speech, as was Baird, a local shopkeeper, for printing it.<sup>(29)</sup>

The Ayrshire weaving communities like those in other parts of Scotland provided the best environment for the activities of Government spies, and the advanced political views of the handloom weavers already fanned to revolutionary heat by economic depression were fertile soil for schemes to promote insurrection. Their trade associations were excellent vehicles for the dissemination of political ideas and the organization of meetings and processions, but they were also suitable for the movement of agents intent to exploit them, without being able quickly to examine and substantiate their credentials.

At/

(28) When Cobbett toured Scotland in 1832, a delegation from Newmilns walked to Glasgow to present an address. He visited the town, received the freedom of the Burgh and wrote a copy of the "Register" while staying at an inn there. "I would go a thousand miles to see the looks of these Scotchies, especially at Newmilns." Ibid.p.235.

(29) Archibald McKay, "The History of Kilmarnock," 1858, p.188.

At the time of the massacre in St. Peter's Fields in Manchester when the government decided to make an example of those who arranged and attended meetings, conditions in the Irvine Valley had reached their lowest point.

"A subscription was entered for those who are out of employment... The average wages, free of expenses will be from 4/6d to 5/- per week. Several families appear to have no more than 7<sup>1</sup>/<sub>2</sub>d per week for each individual, which is the lowest and 1/4d per week for each appears to be the highest that those who have a wife and two or three children can earn for their maintenance... Work is not scarce, but if those employed do not make a sufficiency to support their families, they may be driven to take unlawful methods and commit crimes which in ordinary times they would abhor. Riots may be expected, and disorderly conduct of individuals looked for. A hatred to the government will be expressed, as some of the laws passed lately were against the national voice, particularly the Corn Bill." (30)

Until the end of the year mass demonstrations were organized throughout the west of Scotland. The first one in the district was held at Newmilns on the 7th September, 1819, attended by 4,000 people, "for the purpose of taking into consideration the distressed state of the country and the best remedy for its relief." (31) A series of letters between Nicol Brown of Lanfine, a deputy lieutenant and Lord Eglinton, Lord Lieutenant, describe how insecure the civil authorities felt. Brown kept applying for military support, and Eglinton continually replied that justices and magistrates had to take courage and do their duty.

"We must delay taking any public notice of these meetings until we see the nature of them... Should however the civil power be found insufficient and that they should be repulsed by violence, application should/

(30) Wallace, op.cit., 26th August, 1819.

(31) Brown Papers, 13th September 1819. Letter from Nicol Brown of Lanfine to Lord Eglinton.

should be immediately made to the officer commanding at the next military depot where troops are quartered for aid, who will give orders and send a detachment immediately to your support."<sup>(32)</sup>

Brown complained that it would take three hours to summon troops from Kilmarnock and that it was extremely difficult to swear in special constables, but twenty five finally enrolled, mostly farmers and millers, while ten others also farmers refused to attend the demonstration arranged for the 25th of September. In the meantime he made out his fair copy of the Riot Act and threatened to withdraw licences of public houses if seditious publications were read in them. A troop of hussars was stationed in Kilmarnock and quartered in the farm-houses around to prevent mobs from carrying off the meal stored in them and to overawe the people when a meeting of 7,000 collected in the town on the 18th of September. These early demonstrations met and dispersed peacefully, but on this occasion many of the people were armed, for with the presence of the hussars another Peterloo was feared.<sup>(33)</sup> Although they always gathered in military style the leaders banned the use of drums, flags and music, for the authorities were maintaining that such practices were illegal. Only a few banners were displayed, but the men of Newmilns and Galston flourished large Scotch thistles.<sup>(34)</sup>

The tenor of the people had begun to change by the time of the second meeting in Newmilns on the 25th of September. Instead of statements of working class grievances and demands for representation in parliament a more threatening attitude was exhibited and sentiments were expressed upon the events at Manchester in August, for it appeared clearer now that the attack then had been unprovoked and possibly planned. Brown reported to Eglinton that as arranged

"neither Drums or Music were used in going to the meeting. It was observed, however, that a great number were/

(32) Ibid. Eglinton to Brown, 15th September, 1819.

(33) James Paterson, "Autobiographical Reminiscences," 1871, p. 72.

(34) McKay, op.cit., p. 189.

were furnished with powerful sticks. But when they broke up they paraded along the street passing in front of the Inn where the Magistrates were assembled, making a very formidable appearance, altho they could not but know that such was in defiance of their express orders."<sup>(35)</sup>

About 3,000 were present and a number of Englishmen were at this meeting.

A month later in Galston on the 23rd October the people were more aggressive still, many marching in from the neighbouring towns - "from Mauchline, a party with a flag; Kilmarnock, a cap of liberty and four flags; Newmilns, a cap of liberty and one flag; Darvel, one flag; 4,800 in all."<sup>(36)</sup> Finally on Saturday, 20th November a county meeting was held in Kilmarnock, the people assembling from many districts with a proud and confident air

"amid the stirring music of drums, clarionets, and bagpipes, and bearing flags with mottoes expressive of their principles. An old banner which had stood the 'battle and the breeze' on the famed field at Drumclog, waved among the others."<sup>(37)</sup>

But the resolutions passed and the petitions delivered to Parliament proved fruitless and as the sufferings of the winter increased the view gained favour that the only way to achieve their ends was by physical force.

It is difficult to dis-entangle genuine feelings and actions of the artisans from the subterfuges of the government agents. At the time the people were warned against them and later many saw how they had been duped, but in their desperate circumstances at the bottom of a depression the activists among the weavers and other trades were unlikely to realize that the enthusiasm/

(35) Brown Papers, Brown to Eglinton, 25th September, 1819.

(36) Wallace, op.cit., 23rd October 1819.

(37) McKay, op.cit., p.189. "The Blue Blankets," the saltire flags of the Covenanters of Loudoun and Galston parishes appeared regularly at every popular demonstration until the time of the Third Reform Bill.

enthusiasm of the monster assemblies of late in the year 1819 would not quicken into armed rebellion in the Spring of 1820. Treasonable oaths were not uncommon since the troubles of 1816 and there was a tradition of fraternal oaths among trade unionists from the date of the passing of the Combination Laws in 1799 and 1800. Acts of violence committed under sworn secrecy continued, until these laws were repealed, against traitors in their own camp and against the worst type of employers. There is no reason to believe that all these were foisted upon imprudent members by the spies,<sup>(38)</sup> but the state of feeling at the time was easily exploited by those moral derelicts who were prepared to sell themselves for such a purpose.

When an "Address to the Inhabitants of Great Britain and Ireland," calling for armed rebellion was published on Saturday, 1st of April, issued by a body claiming to be the Committee of Organization for Forming a Provisional Government,<sup>(39)</sup> the working classes all over the west of Scotland were caught between two stools. Secret arrangements were circulating for risings in Scotland and England. Arrests had been made of Glasgow delegates at a meeting in February, but the delay of the proclamation until April made many suspicious. In England they waited for a Scottish army, in Scotland for the English and many local groups started out for predetermined goals, expecting all the while to be joined by thousands of earnest revolutionaries.

It is not unlikely that some plan had been projected and attempts made to co-ordinate the movements of local forces, but it appears that this was allowed as a manoeuvre to get the extremists into the open. Throughout west-central Scotland cold steel weapons were fashioned, used in military drilling and kept in readiness. Men who enlisted in the yeomanry were noted and kept under surveillance, and when the signal came detachments in/

(38) Examples of these oaths are given in Chapman, op.cit. p.199 fn., and in Peter Mackenzie, "Reminiscences of Glasgow and the West of Scotland," 1866, p.114.

(39) Meikle, op.cit., p.228.

in each town, as in Newmilns, were to meet, to go to the homes of the yeomanry in each district to disarm them and take possession of their weapons.<sup>(40)</sup>

All the early stages of the venture were carefully developed and there were many veterans of the Napoleonic Wars to give tuition in the use of arms, but there was no direction given for centralising all the local parties after any initial success. The proclamation of the 1st of April found the men prepared, but only a few districts received coherent movement orders, while the others broke up in confusion.

The weaving towns of Newmilns, Galston, Stewarton and Sorn in Ayrshire were "seething with revolutionary madness,"<sup>(41)</sup> but John Wallace in his account of events in Galston is unusually vague and circumspect.

"On the 1st of April a foolish proclamation, purporting to be a radical production, was published, calling on every person to leave off work and assert their rights, etc. Some looked upon it as genuine, and as having proceeded from a committee appointed by those who wished for a Radical reform others thought it was a hoax; a number were of the opinion that it emanated from spies, employed by the Government in almost every parish in this and neighbouring shires.

The proclamation was affixed in some public places in the night betwixt Sabbath and Monday. A day or two convinced the most credulous that no good would arise from it. A small party from Glasgow were attacked at Bonnymuir, Stirlingshire, and made prisoners. Another small party marched from Strathaven, being instigated thereto by some villain; and proceeded to Cathkin Braes in the neighbourhood of Glasgow, but being there undeceived, dispersed. Two of those taken at Bonnymuir were hanged and others transported, and one at Glasgow belonging to Strathaven, was hanged - Baird, Wardrop [Hardie], and Wilson sacrificed to the odious politics of Castlereagh."<sup>(42)</sup>

(40) "W.S" 26th March, 1886.

(41) Johnston, op.cit., p.241.

(42) Wallace, op.cit., 1820.

Sixty men in Stewarton were drilled under the command of William Orr, shoemaker. In Newmilns the men met, but sensing a plot later disbanded. "In the House of James Inglis, weaver, members of Newmilns Union had congregated to hear the 'Black Dwarf' 'The Manchester Observer' and other seditious and blasphemous publications read."<sup>(43)</sup> Inglis surrendered himself after the events of early April, but his son absconded. Thomas Gray was another of those who were out and it is interesting to note that he is mentioned as having been "a soldier at Perth when the French Prisoners were there."<sup>(44)</sup> Was there a question of some of their revolutionary ideals having rubbed off on him?

The only name alien to the district is one Cuthill who addressed a meeting before the proclamation had been posted and who dramatically demanded that the weavers act in a way that would publicly implicate them when he "drew a line on the ground and said all those who will march in the cause of liberty had to cross it."<sup>(45)</sup> Under the direction of Nicol Brown of Lanfine a search was immediately started for radicals who had been seen in arms.<sup>(46)</sup> A number escaped to America,<sup>(47)</sup> while others skulked in the neighbourhood and were helped by the people to evade capture.<sup>(48)</sup>

On Sunday, 2nd April, the Ayrshire Yeomanry received orders to march on Glasgow and Paisley. The men of Loudoun and Galston/

(43) Brown Papers, Memorandum of Nicol Brown, 1820.

(44) Ibid. Others are described as persons who "sharpened their pikes at Scouller's hone," at Pate's Mill, Newmilns, on Monday, 3rd April.

(45) Ibid.

(46) Brown Papers, Letter from John Campbell, Sornbeg, to Nicol Brown. 24th April, 1820.

(47) "W.S." 6th August, 1909.

(48) Ibid. 26th January, 1917. After some months Ayrshire men were still fugitives, wanted for treason with 250 guineas being offered for their capture. Seventeen of the eighteen sought were weavers, six of whom came from Galston and Loudoun parishes. They were finally pardoned at the coronation of George IV in 1821.

Galston set out on the 3rd, but a number of them from both parishes refused to answer the call and their names were attached by Brown of Lanfine to a list of those to be dealt with for questionable allegiance.<sup>(49)</sup> A force of the Yeomanry also surrounded Mauchline where about 150 men were armed. Thirty ringleaders were arrested and a hoard of pikes and clegs confiscated.<sup>(50)</sup> At the end of two alarming weeks the Edinburgh Regiment of Yeomanry arrived on their "Western Campaign" and on the 14th of April occupied Kilmarnock, Newmilns and Strathaven. As far as Ayrshire was concerned this was the final chapter in the Radical War.

During the following ten years industrially and politically, the feeling of the weavers in the Irvine Valley were submerged, but the real situation had been truly reflected earlier at a meeting of Kilbarchan weavers.

"A spark was kindled at the French Revolution which the enemies of freedom think they have extinguished, but still it burns and every fresh occurrence fans the flames."<sup>(51)</sup>

In 1832, parliament at last yielded to the demands for reform. Before the Bill was passed, Ayrshire with a larger electorate than most Scottish counties had still only 205 voters. In Galston parish there were three freeholders with a similar number in Loudoun. In 1831 when the Reform Bill was introduced/

(49) Brown Papers. Memorandum 1820. In many places strong hostility was directed at the farmers by the people of the manufacturing towns, because of their support for the Corn Laws, but in this district many farmers refused to act against the artisans.

(50) Home-made pikes and clegs were the chief weapons available, all others had to be stolen or confiscated. Shuttles could be adapted and made a very formidable dart, called a cleg. It was weighted and pointed with metal at one end and had feathers attached to give balance in flight.

(51) 21st December 1816. v.Meikle, op.cit., p.222 fn.

introduced John Wallace radical chronicler of the district during that period was still of the opinion "that a corrupt body would not reform itself, and that external force would be resorted to before the end was gained - that at one time I might have ventured myself, yet now I was too old." The realization that force might at last be used, not as in 1820 by a host of poorly armed working men, but with the support of a powerful and prosperous middle class, led to a limited capitulation by the House of Commons. In May 1832 when the House of Lords rejected the Bill demonstrations occurred all over Britain and Kilmarnock staged its largest ever, which included strong contingents from Galston, Newmilns and Darvel.

When the Bill was finally passed it was found that under the £10 franchise Galston parish had 114 eligible to vote and Loudoun 98. The polling station for the parishes of Craigie, Riccarton, Kilmarnock Loudoun and Galston was in Barr Castle, Galston, and the final count for these parishes resulted in 240 votes for Mr. Oswald, Whig, and sixteen for Colonel Blair of Blair, Tory. Many in the district realized as early as this first election that they had been gulled, for "some ill-set young men from Newmilns occasioned some disturbance," by stoning the returning officer and the constables guarding him.<sup>(52)</sup> John Wallace reconciled himself to the reform, believing that the first breach had been made and it was only a question of time before the franchise would be further extended.<sup>(53)</sup>

### III.

#### Radical Principles Maintained.

Between 1793 and 1832 the social and economic standing of the weavers had deteriorated without any form of compensation as their trade privileges and statutory rights were removed./

(52) Wallace, op.cit., 24th December 1832.

(53) "Loudoun showed its superior radicalism, for while Galston parish produced one Tory voter, Loudoun had not even so much as one."  
"W.S." 22nd April, 1910.

removed. In all parts of Scotland the power of the weavers as a body further declined as the century advanced, but the men of the Irvine Valley retained a vestige of economic advantage through special circumstances, already explained, and because of this factor also perpetuated their incorrigible rebellious spirit. Their trade union had been crushed in 1812, their campaign for reform in 1829, defeated, yet after the iniquity of the Reform Act of 1832 the extreme nature of their political doctrines continued to be reflected in all their activities.

A new handloom weavers' union had to wait until mid-century, but in the interval the weavers manoeuvred on every level to promote their cause. The strength of radical feeling in Newmilns induced a self-denying ordinance in the closed corporation and a year before the reform of Scottish municipalities in 1833 the election in the burgh was thrown open to adult male citizens.<sup>(54)</sup> Insurance against misfortune provided by the weavers' societies and unions disappeared with their decline or suppression, but in the district new schemes were attempted to replace the forms of mutual aid which these organizations had furnished. As early as 1792 there was a Universal Society in Newmilns for relief of the poor and a penny society in Galston.<sup>(55)</sup> By 1809 a Galston Benevolent Society had been established for the wholesale purchase of meal to counteract dependence upon local supplies, through buying in the cheapest market and transporting home in bulk.<sup>(56)</sup>

A/

(54) William McCarter, "Ayrshire," 1832, p. 32.

(55) O.S.A. Vol. II. p. 82.

(56) "The Blairs of Longhouse." W.S. 9th February, 1894. In 1809 local meal was priced at 29/9d per boll. The Society bought a cargo of corn in Kirkcudbrightshire, brought it by sea to Ayr and had it milled in Galston, selling at 28/-. By 1817 the capital stock had reached nearly £1,000.

A number of victualling societies had a transient existence in Galston, Newmilns and Darvel between 1800 and 1840, fluttering out in the first trade depression after they had begun, but in the latter year co-operative societies commenced both in Darvel and Newmilns on a proper footing of cash payment to buy meal, cheese and other groceries, the members paying shop rent and salesman.<sup>(57)</sup> Newmilns co-operative was a Chartist Provision Store with 248 members which declined with the movement to reappear in 1857 as an independent co-operative society.<sup>(58)</sup> In 1840 in Loudoun parish there were in addition to a Masonic Lodge, dating from 1747, a savings bank, two funeral societies and a farmers' fire insurance scheme.

The first half of the 19th century was a period of striving for some kind of security against poverty, and struggling to obtain some consideration from an unheeding state and a careless economic philosophy. The mutual aid societies tried to replace the inadequacies of a decaying Poor Law, while the church, the controlling instrument of its funds, came under still further critical strictures from the weavers.

It was at this time that the weavers' attitude to the church was finally resolved. Many severed their connection, while others affected by the political overtones, took up the question of patronage and later became leaders in the Free Church movement.<sup>(59)</sup> In 1838 when Norman Macleod was presented and ordained in the parish of Loudoun the weavers were reading Paine as ardently as ever. They had formed a Philosophical Institution which hired lecturers, and soon complained to him "about the priests not wishing the people to become well informed."<sup>(60)</sup>

Macleod, benevolent, enlightened and sincere yet had difficulty/

(57) Ibid. 10th Mar. 1899. Darvel Society continued to exist from 1840.

(58) Wright, op.cit., p.106.

(59) Faithful and infidel alike considered the Covenanters their spiritual forefathers. It was during this early period of radicalism that the first replacements and refurbishings were made of the old 17th and 18th century Covenanting monuments.

(60) Donald Macleod, "A Memoir of Norman Macleod." 1876. p.166.

difficulty in recovering the ground lost by his predecessor Dr. Lawrie. Family worship was non-existent except among the Cameronians and the eldership was reduced to four in number. /e Soon after his arrival attempts were made to break up his evening services,<sup>(61)</sup> and although in his subsequent career he became one of the most distinguished men in the Scottish Church, and before he left Loudoun he had greatly altered the religious feeling in the parish, he never understood or came to terms with a large section of those within it.

He could not grasp that the ideas of Paine and Cobbett had taken a permanent hold on the working men of his parish, and was more in sympathy with the sentiments expressed by his colleague in Galston parish that there was "a pretty numerous class of the manufacturing population who have been taught to found their claims for support not upon the statutes nor the legalised practice of the nation; and still less upon the principles of Christian charity, but upon some vague notions of natural right."<sup>(62)</sup>

The old order had changed. The working people had seen the aristocracy, the church and latterly the middle class stand by while old laws framed to protect them had been misinterpreted, repealed or ignored and contemporary legislation had raised great difficulties against the establishment of new safeguards. On the spiritual level, even the fear of death and the refusal to admit apostates to church ordinances lost their dreadful powers in a rational world. Paine had done his work thoroughly when Norman Macleod visited one of his flock, dying of consumption and facing eternal damnation.

"T C was the most terrible instance of the evil heart of unbelief, hardened through the deceitfulness of sin. I have seen him for the last time today; he was a breathing corpse...He bent his eye on me as I entered, and motioned me to come in... There he lay an immortal being - a sinner going to meet his God, after having again and again rejected a saviour../

(61) Ibid. pp.116-117.

(62) N.S.A. Vol.5 p.190.

saviour..I said, 'Before I go have you nothing to say?' I wished to give him the opportunity of expressing his faith in Christ, if he had any; but he lifted up his skeleton hand, and pointed out, 'No, no; nothing!'"<sup>(63)</sup>

Within a space of fifty years a large section of the most determined adherents of the Protestant church had completely relinquished their attachment and Chartism inherited the original fervour of their faith.

The handloom weavers of the Irvine Valley, still excluded from the franchise, continued to campaign for reform and directed their enthusiasm into the new movement, and gave their support to the most extreme element. During Macleod's stay in Loudoun from 1838 to 1843, which covered the upswing in trade from the lowest state of depression for plain muslins and lappets into the beginning of good business in jacquard work, the population was in a constant upheaval on public questions. In Newmilns, "political debate seemed to be carried on at every corner. The groups gathered here and there in the street, or crowds clustered on the Green round a tree under whose branches a village demagogue was haranguing about the Charter or the Corn Laws."<sup>(64)</sup>

In 1840, in the same town, the Chartist Association gained control of the Council and continued to press their demands until 1848, when agitation reached such a pitch that riots occurred in Kilmarnock and in the three towns of the Irvine Valley arms were again concealed in readiness for the revolution so obviously imminent.<sup>(65)</sup> But during the period of bewilderment and defeat, following the failure of the Charter, the secretary of the Newmilns Association had to escape to America while a number of others went into hiding.<sup>(66)</sup>

After the terrible years of the 1830s the men of the district/

(63) Macleod, op.cit.,p.140.

(64) Ibid. pp.115-116.

(65) "W.S." 31st March, 1916. The last mention of Newmilns Chartists occurs in 1860. "Garibaldi's Trumpet of Freedom has breathed life into them. £14.10.6 has been subscribed for the use of the Italian Liberation. "Vid. "W.S." 18th August, 1922.

(66) Wright. op.cit.,p.126.

district had begun to enjoy a period of comparative prosperity. Their pre-disposition to attempt the use of physical force as late as 1848 could not, therefore, be ascribed solely to current privation. It could only be explained by the recollection of recent abuses, the traditions of the locality, and by the refusal of the weavers to abandon principles which had been embraced over fifty years before, and which had been kept in a ferment ever since by political repression and class subjugation.

Political agitation continued until in 1884 Gladstone's Bill finally gave the vote to the adult male population and ended the struggle for suffrage reform by the handloom weavers. (67) Over the years the conflict of the men of the Irvine Valley had been for political rights as peasants or peasant-artisans against aristocratic privileges. The end of the century and the introduction of the machine-lace industry changed the character of the campaign, which had been mainly political, to one which placed greater emphasis on economic considerations. Within a decade of the passing of the Third Reform Bill, the lace weavers of Newmilns and Galston had to challenge the arrogated authority of the lace factory owners, the new middle-class entrepreneurs, who had risen meteorically from their ranks.

- (67) The Newmilns weavers regarded Abraham Lincoln and the American constitution as ideal models, although they suffered greatly during the final years of the Civil War. After the emancipation of the slaves in 1862 their Anti-slavery Society could no longer withhold complete approbation and support. They sent Lincoln an address and received in return two presentation volumes and a Union flag.  
Ayrshire "Collections." 1947-49 pp.98-102.

PART II

THE FACTORY PERIOD

1875 - 1915

Chapter 5

The New Organization

I

The Sources of Capital Investment

In the Irvine Valley at the end of the 19th century the resilience shown by the people in the face of adverse economic circumstances can only be explained by their experiments in traditional lines of production, which forestalled a loss in expertise, savings and confidence. Nevertheless, by 1875 the handloom weaving industry had collapsed and the efforts which had been made to keep ahead of the power loom seemed wasted. In the country as a whole there was a slowing down of expansion in manufactured goods and agriculture entered a period of depression which lasted until the 1st World War. But the elements necessary for social and industrial rejuvenation were still at hand in the district and the type of specialisation which led to agricultural recovery in other areas had already been promoted in Ayrshire.

The agricultural scene cannot be ignored in any account of the introduction of the lace trade. Since the days of the agricultural improvements and the beginning of the cotton trade there had been a cross fertilization of money and personnel in these fields of activity and this occurred again in the formation of the new companies. Although the importation of grain, wool and meat from abroad increased in the 1870s until British farmers found themselves priced out of the market, those living in areas of good permanent grass were quickly able to adapt their methods to meet a growing demand for dairy products in nearby urban centres. Earlier than most the farmers of the South-West transferred completely to dairying and the Irvine Valley profitted from the trade which developed with Glasgow.<sup>(1)</sup>

Profit also flowed from a secondary occupation of many of/

(1) The last great stage of railway expansion in Britain also brought an increase in the track mileage of the Glasgow and South Western Railway Co., from 170 miles in 1850 to 311 miles in 1872.

of the weavers, for they combined the grazing of animals with their business at the loom. Their large feus allowed a good crop of mangel wurzels as animal fodder and for a number of them the supplementary income, for the weaver and his family was a factor in the survival of the craft into the 20th century. A few of them raised horses, but for the most returns came from the sale of calves, and the scale of the enterprise can be judged by the area involved. Over and above the land attached to the weavers' houses, dozens of small fields were let annually on the Loudoun and Lanfine estates. On the verge of the three towns these amounted to around 1,000 acres and in 1904 included 400 acres of Loudoun grass parks;<sup>(2)</sup> consequently the weavers' connection with agriculture lasted well into the factory era.

In 1905 thirty graziers were still in operation in Darvel and of these six were handloom weavers and four others were lace factory workers. In the past the income from grazing had helped them through difficult times and latterly those able to rent a number of fields or to set up in retail dairying in Glasgow, accumulated sums large enough to attract them into partnerships in the lace firms at the end of the 19th century.

Alexander Morton & Co., Morton, Aird & Co., and Goldie, Steel & Co., were assisted either at their foundation or early in their business career from the savings of graziers, while the firms of Stirling Brothers; Young & Gebbie; and Stirling, Auld & Co., received the largest portion of their capital from dairymen. Alexander Morton & Co., also had a farmer for a time as a partner, while William Morton & Co., had a seed merchant, and Haddow, Aird and Steel, a flesher. (For details of occupations of the original partners of the firms Vid.App.3).

In addition to helping with the accumulation of savings, the agricultural sector also provided land for the new mills. While grazing cattle and horses and selling dairy products were profitable ventures, the owners of the large estates, dependent on income from tenant farms and from woodlands, suffered during the lean period from 1875 to 1914. Accordingly, money was raised by the Loudoun and Lanfine estates, which owned most of the/

(2) "W.S." 26th February, 1904.

the land in Newmilns and Darvel, by extensive feuing. Between 1881 and 1915 Robert Hendrie, factor at Loudoun and a partner in the Galston lace firm of Hendrie & Co., feuded ground for thirteen factories in Darvel and a few more in Newmilns, while the area covered by houses in the villages was practically doubled.<sup>(3)</sup> Similarly, in Newmilns, factories and houses were built mainly in the Greenholm district owned by the Browns of Lanfine, making available at the right time for the growth of the new industry suitable land at reasonable cost from decaying landed estates.<sup>(4)</sup>

Other sources of financial support and managerial talent were found in Glasgow which was the leading area of power loom production of muslin and lappets, while the warehouses of the city received Scottish textiles for dispersal at home and shipment abroad. Sons of weaving agents in the Irvine Valley entered a number of these firms to learn the business, and when the warehouses began to handle the new lace goods some found backers among their connections in the city.

In the sixteen lace, madras and lappet factories set up between 1875 and 1887, the first period of expansion, twelve partners in the new companies came from Glasgow but of these six had their origins in the Irvine Valley. James Morton of Newmilns started his business life with the firm of Stewart and MacDonald and returned to become manager of William Morton & Co. Robert Muir came back with his Glasgow partners to establish Stewart, Moir and Muir, but within two years broke away to build his own factory. John Shields, trained in Glasgow and Manchester, became a co-partner in Johnston, Shields & Co. Charles and John Robertson of the firm/

(3) Ibid. 24th September, 1914.

(4) Register of Sasines, County of Ayr. "Disponed by Martha Brown of Lanfine and Waterhaughs, superior of the lands and others first aftermentioned and Proprietrix of the lands and others second aftermentioned to John Morrison Stewart, Alexander Moir, and Robert Muir, Lace Manufacturers and Warehousemen, Glasgow and William Muir, James Muir and Allan Muir, Lace Manufacturers, Newmilns, individual partners of the Firm of W. Muir & Sons. 1) 1 rood, 28 poles, 19yds. of ground in Greenholm. 2) 1 acre 2 roods, 1 pole, 3yds. of ground in Greenholm." Dated 20th November, 1880.

firm of that name in Glasgow were also partners in the home firm of J.M.Robertson in Galston, and Alexander Jamieson achieved success with his own business first in Glasgow and then back in Darvel.<sup>(5)</sup> However, the majority of the companies did not require support from Glasgow, as there were sufficient funds available in the district.

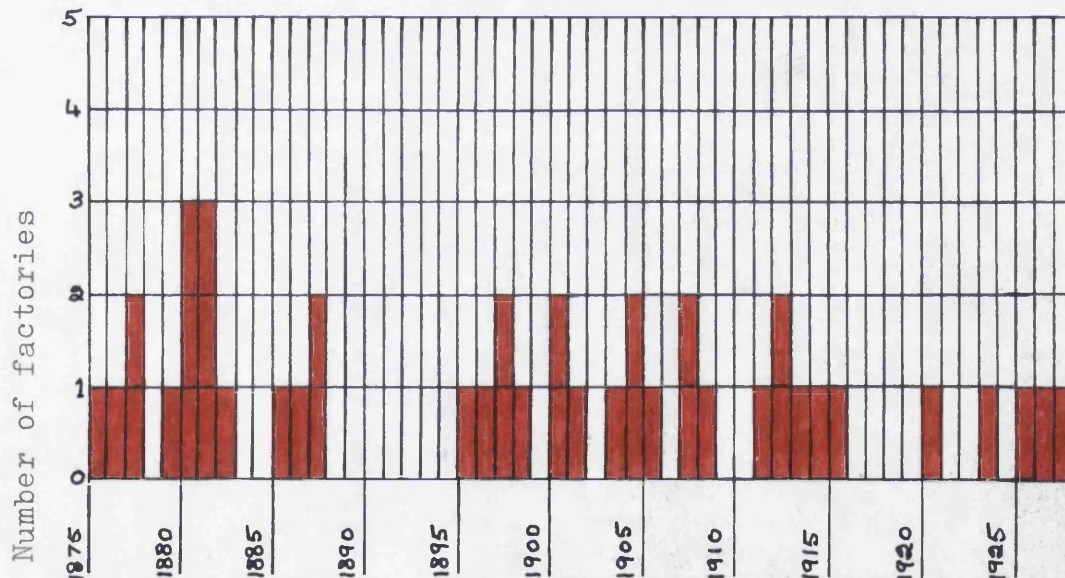
## II

### Weaving Agents into Factory Owners

The Irvine Valley came late into awareness of the Industrial Revolution. The railway had reached Newmilns in 1850, a steam engine had been installed in a wincey factory there in 1864, and an ironworks and coalpits were opened up at the same time around Galston, but the three towns remained shut up in their valley, self-supporting and inward looking.

#### DIAGRAM I

##### Date of Construction of the Lace and Madras Factories



(From the Valuation Rolls, County of Ayr.)

Their trade might be with the outside world and their views influenced by ideas and events in the world at large, but, from 1840 to 1872, the locality was prosperous and few of those who lived there needed to look elsewhere for employment or social outlets.

(5) <sup>This</sup> John Stewart of Greenhill House, Paisley and a partner in Stewart, Moir and Muir was a descendant of the Stewart of the Isles House who had moved from Newmilns at the end of the 18th century to Paisley and afterwards carried on business as cotton manufacturer first in that town and then in Glasgow.

This phase of relative stability and prosperity was broken with the onset of severe depression in the years 1872 to 1875; but from 1875 to 1887 while the depression lay deep on most parts of the country, the Irvine Valley district experienced an industrial trend contrary to that of Britain as a whole.<sup>(6)</sup> As interest and profits fell, and with them savings and investment,<sup>(7)</sup> no fewer than sixteen new factories were constructed in the Valley. While in much of the country the confidence created by the economic upswing between 1850 and 1873 was lost, in the Irvine Valley untapped savings from domestic industry readily awaited mobilisation.<sup>(8)</sup>

Diagram I on page 82 shows three clearly defined periods of expansion in the lace and madras industry. The first stage points to the success of the Ayrshire entrepreneurs in the twelve years after 1875, built on the enterprise of those who introduced the lace machine and on the technical and economic advantages available to them at that time, already described in Chapter 3. The second stage of company flotation occurred in the recovery of the economy in the mid-1890s and lasted until the beginning of the First World War. In the third stage, five small firms were established in the 1920s, once again during a period of general recession.

The most common occupation of those who started up in factory/

- (6) W.H.B.Court, "British Economic History 1870-1914," 1965, p.8. "The twenty years of falling prices, 1875-1896, which were also the time of recurrent complaints of depression, were a period when home and foreign investment together formed a smaller proportion of the gross national income than they did for the 1870-1914 years taken as a whole."
- (7) "I have nearly all the evidence that was given before the Depression of Trade and Industry Commission and I really could not see that there was any very serious attempt to prove anything else than a depression of prices, a depression of interest, and a depression of profits; there is that undoubtedly." Answer by Alfred Marshall. "The Gold and Silver Commission, 1888, No.9824.Court,op.cit.p.20.
- (8) Cash credits were rarely given by banks, but see Register of Sasines, County of Ayr, 25th and 29th December, 1887 for one of £3,000 by the Clydesdale Bank Ltd., on the security of the land, buildings, plant and machinery of one of the companies.

factory production was that of weaving agent. The previous occupations of the original partners are given in Table 6. Out of the sixteen firms created before 1887, fifteen partners in ten of the firms had been agents or were the sons of weaving agents, and another half dozen helped to establish later companies. They were promoted in the classic style of the early Industrial Revolution out of the savings of the partners,<sup>(9)</sup> or by loans from private individuals on the security of the property and plant.<sup>(10)</sup>

Table 6

Occupations of the Original Partners in  
the Ayrshire Lace and Madras Firms.

|                                      | <u>1875-1887</u> | <u>1895-1927</u> |
|--------------------------------------|------------------|------------------|
| Handloom weavers, Agents and         |                  |                  |
| Auxiliaries.                         | 19               | 7                |
| Warehousemen and Manufacturers.      | 16               | 5                |
| Farmers, Graziers and Dairymen, etc. | 3                | 3                |
| Lace and Madras Factory Workers.     | 1                | 28               |
| Others.                              | <u>2</u>         | <u>8</u>         |
| Total                                | 41               | 51               |

(Register of Sasines, County of Ayr and verbal accounts.)

The opportunity to share in the success of lace production by the handloom agents resulted, as we have seen, from the achievement and maintenance of a stable financial position in the old leno curtain trade. The three decades up to 1872 were the years in which the agents accumulated the funds which launched them into the lace industry, and although initial capital expenses were small, business ability and moderate savings/

- (9) With the industry mainly confined to local men, relatives were made charge-hands and departmental managers and allowed to invest their savings. In turn their friends and relations were considered for employment until generally an intricate network of family relationships was created which encouraged family loyalties to the firms over three or four generations.
- (10) Loans were acquired by bonds, which were disburdened within a few years, to the following:- a retired schoolmaster, an innkeeper, a carrier, two farmers and a solicitor, all within the district. The bonds were negotiated by the following firms: 20th June 1882 - J&J. Wilson; 27th September 1883 - Peden, Young & Reid; 7th and 8th January 1887 - Cleland, Campbell & Co; 4th June 1888 - A. Jamieson & Co; and 16th March 1889 - Stewart, Moir & Muir. Register of Sasines, County of Ayr.

savings were necessary, before the example of Alexander Morton and Joseph Hood could be followed. Machines were bought with nominal deposits,<sup>(11)</sup> and the forward buying of yarn delayed payment until the receipt of weekly or monthly deliveries,<sup>(12)</sup> Yet the cost of buildings, yarn to clothe the looms, designs and cards all had to be met before lace could be produced, finished and marketed.

By 1880 the returns to investment in the industry were obvious to everyone in the district, and before the end of 1887 eleven new firms joined the five already in existence and quickly expanded their productive capacity. This expansion could well have drawn on capital outside the established partnerships, but it was seldom solicited after the foundation of a company. Since the combined salaries and net profits of the owner-managers ranged between fifteen per cent and twenty per cent of total turnover, falling just short of the sum of the companies' direct wages which normally lay between twenty and twenty-five per cent,<sup>(13)</sup> the growth of each company out of profits came well within the compass of its partners.

While much of the early finance came from the established weavers' agents, the same men also found that their stock of technical and commercial expertise transferred easily to the new lace industry. A man who had one or two hundred weavers working for him in earlier times was equally suited to administer a similar number of operatives under one factory roof. This was especially so for those agents, who in the latter years of the handloom trade, had become more truly manufacturers, and had their warping done to their own or to commissioned designs. The ultimate efficiency of each firm depended upon the business capacities of the owners, who usually numbered two or three. They and their kinsmen took up specific tasks within the firm, factory management and sales promotion being vital, while the lace workers found the transition from home manufacture to factory production relatively smooth and tolerable.

(11) "W.S." 5th February 1886. Advertisement:

John Jardine  
Makers of Lace Machines and of All Their Accessories.  
Nottingham Purchase-Hire System.

(12) Yarn was bought six months ahead and called in. A few manufacturers indulged in speculation in this field.

(13) Yarn costs were from thirty per cent to forty per cent, and finishing around twenty per cent.

III

The Business Structure

In 1887, when the first wave of building had been completed, there were sixteen lace factories in Ayrshire, with eight in Newmilns, four in Darvel, two in Galston and one in Kilmarnock.<sup>(14)</sup> Most of them combined lace production with madras, but there was also a power loom lappet and madras factory in Newmilns. Nottingham found itself with a powerful rival in lace furnishings. Within twenty-five years from 1887 the Scottish industry achieved a higher production in this line, and at the outset of the First World War the number of lace companies had grown to thirty-three, with thirteen in Newmilns, fourteen in Darvel, two each in Galston and Glasgow and one each in Kilmarnock and Stewarton.(vid.App.3,pp.200 - 205)Madras, tapestry and lappet work was carried on in three factories in Darvel and two in Newmilns.

The price of a pair of lace curtains was 15/- per pair before the introduction of the industry in Scotland. By 1897 a pair of similar quality had been reduced to 3/6d.<sup>(15)</sup> The lower cost of the raw material and the increase in the standard of living in the second half of the 19th century encouraged the demand for cotton textile furnishings. The curtain machine, continually improved and capable of producing a great width of material with an all-over pattern, proved most suitable to meet that demand.(Print 6 p.216) Nottingham initiated and fostered the lace trade. The Scottish companies, grasping its possibilities, intervened and captured the major part of the market in/

(14) Initially Newmilns went ahead in the construction of lace factories. This can be explained partly by that town being a long established weaving centre with greater savings laid up in the community, and partly by the fact that the railway stopped there until the extension of the branch line to Darvel in 1896.

(15) "W.S." 25th June, 1897.

in furnishings. (16)

They were able to achieve this through a number of elements which yielded comparative advantages, and the palpable success of the first entrepreneurs was evident in the rapid expansion of their enterprises, and the change in their style of living. This was considered a just reward for "a sober, diligent and intelligent perseverance in the path of business duties." (17) So many men were attracted into the industry a Darvel woman could write, "Every other man you meet in the street is a lace manufacturer. Perhaps when you last saw him he was at marbles in the playground. Today he is a millowner, talks of eights and sixteens, of ten points and twelve points, and double spools, and lives in a house on the Brae." (18)

The machines installed in Ayrshire were erected in modern factories specially designed to accommodate them and to ensure a progressive manufacturing flow from the arrival of the spun yarn to the dispatch of cloth to the bleachers and finishers. To achieve this the factories were built either all on one level covering a large area, and this proved the most efficient, or they had two or three stories with a tall ground floor to take the heavy curtain machines, while the subsidiary departments were situated on the second and third floors. (Print 5p.216) The machines were the latest wide models and those with inside working parts ranging from 216" to 360" were in use as early as 1890. (19)

As the industry was completely new to the area, and no trade union existed, there were no established trade practices, as in Nottingham to prevent employers setting their own standards in methods and shop organization. This was particularly easy, since the workpeople readily adapted to the new trade for, as an old handloom weaver claimed, "all they had to learn was the frame." (20) Attempts were therefore made to employ one man on two machines, anathema to Nottingham twisthands, and quickly so regarded by the unorganized Scottish lace weavers./

(16) Vid. below Chapter 6.

(17) "W.S." 11th September, 1880.

(18) Ibid. 4th August, 1905.

(19) Ibid. 1st August, 1890.

(20) Ibid. 26th May, 1893.

weavers.<sup>(21)</sup> The lack of any guiding principle at the beginning led to an odd situation in which towns two miles apart had different systems of wage payments. Newmilns adopted fixed day rates, while in Darvel it was always a piece-rate system. This discrepancy caused two prolonged lock-outs in 1912 and 1914 when a need for uniformity was thought necessary by the employers.

However, in the first quarter century of the trade's existence in Scotland neither method rewarded workers with payment comparable with the rates in Nottingham.<sup>(22)</sup> No true comparison between the districts can be made, even between curtain trade operatives, for many of the twisthand's tasks in Nottingham were broken down into specialised repetitive work for the ancillary workers who supported the Scottish lace weaver. (Vid. below Chapter 7.) A fully employed leno weaver in the early 1870s earned 15/- per week; the average wage for lace weavers in 1881 was still only 17/-, with a maximum of 24/-.<sup>(23)</sup> These Scottish rates greatly undercut the English payments and made it difficult for Nottingham to compete effectively in lace furnishings.

One new field of production which had to be successfully mastered by the weaving agents was the work of the designing department, and Alexander Morton must receive much of the credit for the initial success of Scottish lace goods. In his time as a leno manufacturer he combined business ability with a feeling for design which crystallized in many good selling lines. This talent was an essential part of his achievement, but during the 19th century French patterns were recognized as the most distinguished in the ease and elegance of their style and economic use of materials, (24) and it is interesting to note that when Morton first started in lace production he requested from his designers patterns/

(21) Scots terms were transferred from handloom weaving practice, while the English terms evolved with the lace machine.

The following are some which are interchangeable.

| <u>Scottish</u> | <u>English</u>           |
|-----------------|--------------------------|
| Weaver          | Twisthand                |
| Web             | Warp beam                |
| Shuttle         | Bobbin and carriage      |
| Shots           | Ties                     |
| Loom            | Lace machine             |
| Heddle-in       | Tie-in                   |
| Tredden hole    | Depression for warp beam |

(22) Cuthbert, op.cit., p.270.

(23) "W.S." 11th June 1881.

(24) John Murphy, "A Treatise on the Art of Weaving," 1836. p.329.

patterns reminiscent of those he had seen on a visit to Lille.<sup>(25)</sup>

He engaged first class independent artists to work on all his fabrics, even after he had set up his own designing department. Other companies when they started brought in designers from Nottingham to establish a department in each factory,<sup>(26)</sup> but by the end of the century almost every company had its own design team employing a staff of about twelve with four draughtsmen and girl copiers supporting a chief designer. By then seventy-five per cent of the company's design needs were supplied from its own resources. Free-lance leno designers also quickly adjusted to the requirements of lace, and later developments in madras were readily met by workers trained in leno and lace design.

Each lace firm combined all the steps of lace production from the receipt of the spun yarn to the sale of the product. Under one roof were integrated the separate processes which in the handloom trade had been carried out in various places, often under numerous individual owners. The lace companies did their own warping, beaming, brass winding, spool winding, weaving, repairing and selling, and in most cases their own making-up. Their commercial outlets were to wholesalers, retailers, shippers and to agents abroad; the only operation done outside the firms was the finishing.

This process involving the final bleaching, dyeing and dressing was given out on commission to specialist companies, and in Scotland was normally undertaken by the Bleachers' Association. This was a combine which early in the 20th century had a monopoly of finishing and which, by 1905 had absorbed the two local bleachworks of Forrest, Gillies & Co., established in Newmilns in 1883 and of James Cleland & Co., enterprisingly built in Darvel in 1904 and sold at a profit the following year. From then on the local manufacturers could do little to resist the price manipulations of the Bleachers'.

(25) French designs were early admired and considered the cream of the curtain trade. "W.S." 20th February, 1903.

(26) A few specialist designing firms eventually developed in the Irvine Valley in a small way, but in Nottingham before the First World War one firm of designers employed sixty workpeople.

Bleachers' Association. On a number of occasions they were driven, through their own Lace Manufacturers' Association, to estimate the co-operative purchase of finishing plant and the erection of a Bleachworks, but the fierce individualism of the lace employers made such a scheme unworkable from the start.<sup>(27)</sup> In any case, finishing lay outside the province and skills of the manufacturers, although they knew exactly the requirements for their own goods. It was a considerably different type of business, better left to experts in that field even if it meant dealing with a monopoly, and it allowed the lace manufacturers to concentrate on their own sphere of specialised techniques.<sup>(28)</sup>

On the sales side the Scottish firms, with one exception, marketed the lace for themselves, both in the brown and in a finished condition.<sup>(29)</sup> The finished goods were supplied from their own making-up department, or more commonly were supplied by the finishers according to the manufacturers' specifications. This was an essential difference between the Scots and English manufacturers. The majority of English lacemakers sold in the brown state to Nottingham merchant converters who then marketed the goods as their own. The Scots sold only part of their production in this way at one time or another. They were never therefore at the mercy of middlemen as they utilized numerous outlets, and this added a further advantage in retail profits for those who extended their business into this field.<sup>(30)</sup>

#### IV

##### The Machine and its Product

The resistance shown, first by the Nottingham Lacemakers and then by the Newmilns Union to manning more than one machine by/

- (27) Manufacturers' Association Minutes. 28th September 1905 and 23rd October, 1922.
- (28) Each manufacturer had the right to see his own goods being finished, but they were all uneasy about the others walking through a finishing plant where the curtains of each firm were being processed. They were happier when finishing moved out of the district.
- (29) The whole production of J. Muir & Co., Newmilns was in the brown, fulfilling orders for other companies.
- (30) Alexander Morton & Co., in Darvel and Morton, Young & Borland in Newmilns were engaged in the retail trade.

by each operative forced the firms to ask the makers to build them ever wider until 470" and 480" machines were installed in the Irvine Valley. In those areas where piece-work was the standard form of payment it is difficult to understand the reluctance of the weavers to work more than one machine, but in Newmilns and Galston, where time rates were applied up to 1913, wider machines at the same pay would have been an imposition.

Although manning was not the major question on the organizational side of the trade, it might have been better if a tradition of smaller machines had been established. In periods of adverse fashion trends, when shorter runs were requested, greater flexibility of production would have been possible if one weaver had operated different small runs on a number of smaller machines. Greater production would also have been achieved if two small machines had continued to work while a weaver carried out a repair on another. When the widest and finest single machines were built, over 5,000 warp threads were held still as long as one remained broken. If a mechanical fault or a defect in the jacquard had to be traced, the machine lay idle for longer periods.

A system employing several small machines would also have had its disadvantages. The weaver involved would have inevitably been reduced to the status of a thread minder and this would have then necessitated the employment of additional tenters as in the madras sheds. The initial capital expenditure in machines, jacquard machines and cards would have been greatly increased and might have neutralized the expected benefits.

In the product itself there was no revolutionary change. It was still a furnishing fabric, cheaper than handloom goods and subject to a wider range of styling. Alexander Morton set the pace for awhile in design. He followed the model of William Morris in his silks and tapestries, while lace developed the naturalistic forms of the old leno weave. (Print4, p.215)

Many of the early lace curtains suffered from the overcrowding of detail dear to Victorian taste, but others showed greater discipline and simplicity under the direction of a superior artist and these achieved a more pleasing effect. However, it is true that over long periods, through restriction to natural/

natural and geometric forms, lace suffered the harmful consequences in the market of conventional and stereotyped shapes.<sup>(e)</sup> The firms therefore had to look at the problem afresh, not for new ideas in form for there are hardly any, but for the sleight of touch of an artist craftsman which would alter the product in such a manner as to carry it over a bad period or to lead it into a new and more successful one. A case in point is net fabrics. At their best they continue to have a lightness and grace which cannot be replaced by printed, close textured, woven materials with all their advantages of unlimited styling and invention.

To a person not apprenticed in the craft lace designing sets insurmountable problems. He might be able to make the first suggestive sketches, (Print 9, p.218) but without an understanding of the machine and the constituent yarns from beam, spool boards and shuttles and also therefore of the figuring components of his patterns, he could make no real contribution to a designing department. (Prints 10 and 11, pp.218 and 219)<sup>(31)</sup> A good design might run for twenty years and might be resurrected many years later with success, and so it was profitable for a manufacturer to copy an idea from another.<sup>(32)</sup> During the last twenty years of the 19th century litigation kept recurring over this question, while many other cases of copying never reached the courts as only the general motif of a pattern would be stolen without duplicating the original. It was therefore difficult to prove an infringement.<sup>(33)</sup> This plagiarism was widespread, since at that time curtain patterns were protected for five years only. Further security was granted following the Patents and Designs Acts of 1907 and 1919 and the Design Rules of 1920, after which renewal of registered designs could be obtained for two additional periods of five years. Unethical business practices/

- (31) Art school graduates could not easily be recruited to lace designing, without first learning the machine. Young designers came through the designing rooms as art apprentices.
- (32) A design produced by Henderson, Morton, Inglis & Co., had a successful run from 1914 to 1930.
- (33) "W.S." 4th March, 1887. Report on a lawsuit between Birkin's and J. Wallis & Co. Birkin's design sold at 10/- per pair, Wallis's at 1/- per pair cheaper.

practices continued throughout the history of the trade and became such a thorny problem, that the fear of competitors increased to an excessive degree, and manufacturers would not display their latest styles at trade exhibitions.<sup>(34)</sup>

The practice of copying designs was the most spectacular instance of injurious conduct within the trade, but the continuous cheapening of the product had a more lasting and harmful effect in general. Before lacemaking began in the Irvine Valley a pair of good quality Nottingham curtains as stated cost 15/-. By 1897, when the industry with all its ancillary processes was fully mechanized and efficiently deployed, the cheapest pair of Ayrshire curtains could be obtained at 1/-.<sup>(35)</sup>

Attempts at voluntary control of prices persistently failed until 1939, and then the scheme was quickly rendered ineffective by Government regulation of the yarn issue and the transfer of production to war materials. Until then all kinds of undignified ways were adopted to sell a pair of curtains at a penny less. These ranged from the crudest subterfuges of quality cutting and excessive dressing to plainly discreditable price reductions and by furnishing travellers with free samples.<sup>(36)</sup>

Seventy-five per cent of the early curtain trade was in pairs of long curtains or in single, large "store curtains," varying in size from 2½ yds. long and 36" wide to 3½ yards long and 72" wide. Each of these curtains had an integrated design, with an all-over pattern and a border or scalloped edge. (Print 14p.220) No colour was used, but variation in shades was accomplished by combinations of brown Egyptian and white American cotton. Shading was also possible when another bar was added to the machine, fed by an additional spool board at the rear and with its working governed by a second jacquard machine.<sup>(37)</sup> (Vid. App. II, p. 197).

Lace/

(34) Ibid. 16th January, 1914. As late as 1914 a Newmilns firm sued a Darvel company for an infringement of a registered design.

(35) Ibid. 25th June, 1897.

(36) A wholesale firm might have as many as forty salesmen each with a dozen patterns. The cost of supplying a full range of samples to cover all the commercial outlets was a considerable amount. Eventually by agreement among the companies an attempt was made to charge for these. Manufacturers' Association Minutes, 30th December, 1915.

(37) Coloured cotton and rayon yarns were in common use by the mid-1920s.

Lace furnishing goods were intended as large items to decorate the home. It was inappropriate and impracticable to produce a material for such a purpose from hand-made lace in the famous styles of Venice, Brussels or of the English patterns of Honiton. Copies of these for dress fabrics were the preserve of the finer Levers machine, using up to forty bars and capable of imitating most other types of hand-made lace. This left to the curtain machine the coarser yarns and the larger and naturally heavier furnishing fabrics.

Unfortunately, the Scottish industry was never able to curb a proclivity among its manufacturers to cheapen the furnishing goods. Consequently, although the Irvine Valley achieved the world's largest and most efficient productive capacity in lace furnishings, in doing so had to yield up to France and Switzerland the manufacture of quality goods, the importation of which into Britain had reached the value of £250,000 in 1903 and £1¼ million into the U.S.A.<sup>(38)</sup> A further corollary of concentrating on the heavy, mass market fabrics was spelled out in 1913 by Alexander Morton. He told a meeting of Scottish lace manufacturers that they did "not have sufficient variety in the industry" and he feared what might happen with a change of fashion. But at that time the warning appeared premature. The market was buoyant and there was a wide diversification of products within the heavy range. About twelve of the lace factories had madras sheds, two of the companies also produced chenille, an expensive product,<sup>(39)</sup> and one made carpets. There were four madras and tapestry factories and one producing lappets and madras, while another had a side line in hosiery and one had embroidery machines.

Not only were window curtains made, but tablecloths, bedspreads, nets, piece goods, lace blinds, antimacassers, and even a lace wall cloth. Lace came to occupy a large place in the interior decoration of Victorian and Edwardian homes and made Morton's fears superfluous at this stage in the industry's development.

The Scottish industry had opted for lace furnishings, grafted on to the old leno curtain trade. The natural consequence of their efforts had been success in a specialized field over/

(38) "W.S." 20th February, 1903.

(39) Ibid. 30th November, 1917. Chenille curtains were offered at 57/6 a pair.

over all competitors. There was no point in the Scots manufacturers envying the growth in sales in quality French goods or in English Levers lace, for these were differently organized and as luxury goods faced even greater hazards in the world of fashion.

When the second phase of factory building began in 1895 the period of exceptionally high profits came to an end. Nottingham had occupied the intervening time to readjust to the Scottish challenge, while local competition also intensified, but still prospects were good for the establishment of new companies and twenty-one were created in the district by 1915.

The partners of these firms were drawn mainly from men who had gained their experience in the trade. Table 6, p.84 indicates that the majority of the partners in the new firms had earlier been employed in other lace and madras factories. The number of agents, warehousemen and handloom weavers naturally decreased as the old leno trade died out, the younger and more enterprising having already been absorbed between 1875 and 1887. The expertise necessary for success in the tougher competitive field which developed after 1895 was more likely to be found among those who had acquired their knowledge within the industry.

I

Growth of the Lace Firms

The first phase of company flotation ended in 1887 with sixteen new factories in existence, distributed over the years from Alexander Morton & Co. in 1875 to Alexander Jamieson & Co. in 1887. All sixteen were founded by the personnel of a muslin or lappet agency or warehouse. But, before the introduction of lace the Newmilns companies, Hood, Morton & Cleland produced power-loom winceys and J. & J. Wilson, power-loom muslins, and at the end of this period Alexander Jamieson in Darvel produced madras goods in advance of lace. Each firm began in a small way with the installation of two or three machines, but each also visualized quick expansion after Alexander Morton had overcome the early problems of lace machine operation and of marketing.

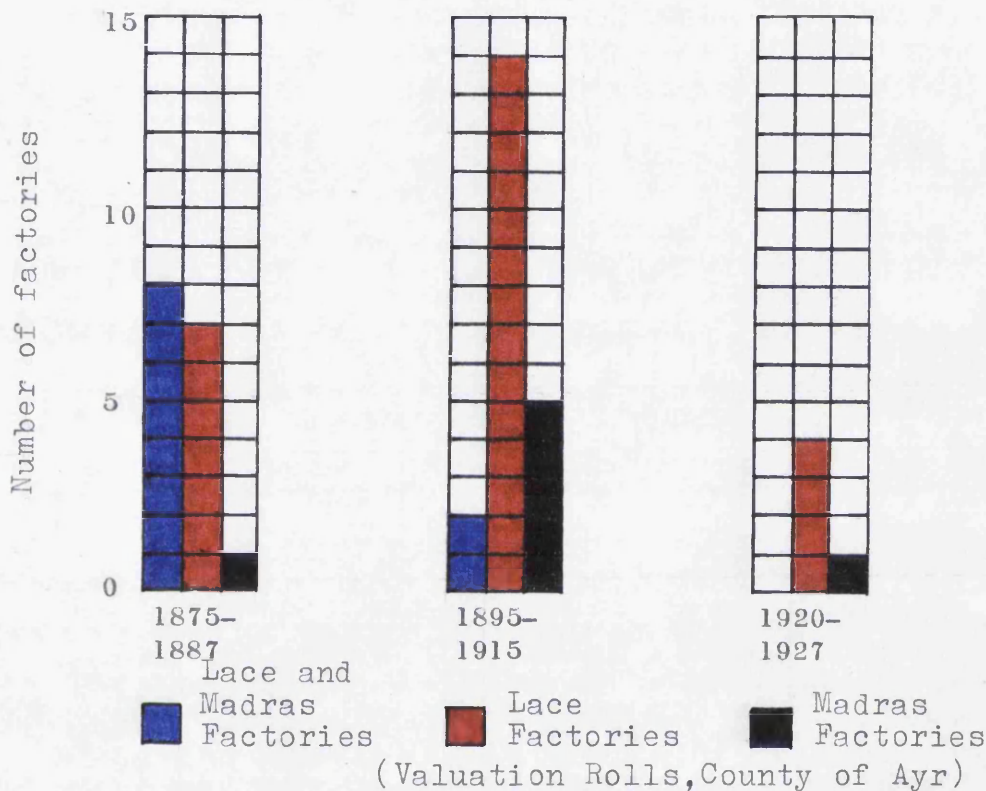
Sheds were built to hold from five to ten machines with extra ground held in readiness for additional sheds. The firm of J.M. Robertson constructed their first building in Galston in 1880 to accommodate eight machines and Peden, Young & Reid's earliest shed was built for nine, six of them being in position by 1884 three years after its completion. By 1880 only thirty machines had been erected in eight factories. Eight years later, after the first flush of building, 110 machines in fifteen lace-producing factories marked the secure establishment of the industry. <sup>(1)</sup>

These early firms were born in an unpropitious economic climate, but produced goods at prices which were attractive and were regularly reduced. This encouraged a developing fashion and ensured continued success. However, at this time only seven companies worked exclusively on lace. The other nine companies, when in operation, maintained an interest in power-loom muslins and tapestries which came under jacquard control in the early 1880s. In addition, Hood, Morton & Cleland/

(1) "W.S." 24th February, 1888.

Cleland and Alexander Morton & Co. also developed the expensive chenille curtains and tablecovers.<sup>(2)</sup>

Diagram 2  
Major Types of Production in the  
Ayrshire Lace and Madras Factories.



The production of woven materials progressed in conjunction with lace, giving continuity to this style of manufacture in the district over a period exceeding three centuries. Meanwhile, independent handloom weavers had been drastically reduced in numbers,<sup>(3)</sup> but around 200 were still employed in 1890 by the following companies to meet dwindling muslin orders: by Alexander Morton & Co. and Alexander Jamieson & Co. in Darvel; J.M. Robertson in Galston and J. & J. Wilson in Newmilns.<sup>(4)</sup> Even these workers were slowly displaced by women power-loom workers until, by the end of the century/

(2) In 1886 Hood, Morton & Cleland produced lace curtains, lace embroidered curtains, lace nets and piece goods, lace blinds, lace vitrages and antimacassers; chenille curtains, chenille portiere curtains, antimacassers and piece goods; tapestry table covers, curtains and piece goods used by the art upholsterer. Ibid. 6th August, 1886.

(3) There were only sixty-three handloom weavers left on the Newmilns Association roll in 1892. Ibid. 21st October, 1892.

(4) Ibid. 1st August, 1890.

century, only a dozen or so were at work both in Darvel and in Newmilns. The majority of firms believed in dividing their concerns between lace and madras, mixing the new with the old. Only one company confined itself to muslins and lappets, the incoming firm of David Ligat & Sons from Glasgow which had moved to this area of plentiful skilled labour.

In 1870 around two thousand handloom weavers had been at work in the three towns, with additional employment available for other men and women in ancillary trades. Twelve years later, these had been reduced to little more than a quarter of that figure, but by 1890 nearly 3,000 people were employed in the Irvine Valley lace and madras factories.<sup>(5)</sup> The largest firm was Alexander Morton & Co. with 700 operatives, forty lace machines and engine capacity of 600 H.P. At the other end of the scale, Cleland, Campbell & Co. established in 1886 had only fifty employees, room for seven machines and a 25 H.P. engine.

The smaller firm served as a truer model for the new lace companies in the second phase between 1895 and 1915. Only two of the later companies installed more than a dozen machines,<sup>(6)</sup> and the tendency to combine lace and madras weakened with only two firms out of a total of twenty-one adopting this system. Five others concentrated on madras and tapestry fabrics exclusively. Comparison of the differing textile production of the factories in distinct periods is made in Diagram 2, (p.97) and details of company products are given in Appendix 3, pp.200 - 205.

The reason for greater specialization lay in the industrial background of the owners, for in almost every case in the new generation of partners from Stevenson, Young & Anderson (1895) to J. Muir & Co. (1915) one among them, in each firm, had been an operative or manager in the new industry or had been involved in one of the earlier lace companies as a partner. This also applied in the new madras firms. (Vid. App.3 pp.200-205.) With the addition of these twenty-one factories/

(5) Ibid.

(6) Stirling, Auld & Co. and W.E. & F. Dobson.

factories before 1915 the number in Ayrshire reached a total of thirty-seven.<sup>(7)</sup>

## II

### Scale

Throughout the history of the Ayrshire lace industry, ownership remained with few exceptions, in the hands of the families which established the original companies, and only through marriage was new blood admitted to a controlling interest in any of the firms. The two oldest, Alexander Morton & Co. in Darvel and Hood, Morton & Cleland in Newmilns, can truly be described as parent companies. Not only did they encourage others to enter the trade, but they also provided many of the personnel of the later firms from owners to operatives, and served as a training ground for the industry.

They were particularly valuable in the new field of lace production in overcoming the early problems of manufacturing and marketing, making it easier for others to set up on their own, using the knowledge and contacts gained while employed with them. Both companies had been firmly rooted in the handloom industry and by the beginning of the First World War they had grown additional branches and several offshoots while independently former partners and employees had established new firms.

After the introduction of lace goods in 1875, Alexander Morton & Co. moved into the power-loom weaving of madras and chenille between the years 1883-85 and of carpets and tapestry in 1886. In 1898 with the approval and support of the Congested Districts Board production of hand-tufted carpets was started in Donegal. In 1900 a further factory was acquired in Carlisle to expand the Company's tapestry and carpet departments. This formed the basis of a separate firm, Morton Sundour Fabrics, the principal shareholders of which were James Morton, son of Alexander and David Craig who had been employed in the carpet section.<sup>(8)</sup> Subsequently three nephews/

(7) In 1915 the number of separate companies was reduced to thirty-five with the destruction by fire of the factory of Stewart, Moir & Muir. Earlier, in 1904, the firm of R. Muir & Son went into liquidation and was acquired by A. & J. Muir.

(8) Morton, Sundour Fabrics had a separate factory in Darvel.

nephews of Alexander Morton opened up a madras factory in Darvel in 1904 (Morton Brothers), while another nephew, Gavin, went into partnership to develop the carpet business of Blackwood & Morton in Kilmarnock.

There had also been a number of separations from the companies chiefly promoted by Joseph Hood in Newmilns. From the original textile firm making steam loom winceys, James Wilson, who had been a weaving agent, broke away in 1870 to adapt the old Wool Mill and its water wheel for the production of power-loom muslins and to drive clipping machines. Ten years after the establishment of the lace company, Hood, Morton & Cleland in 1876 James Cleland left to form the new lace firm of Cleland & Campbell in Darvel, and as foreign tariff barriers were raised in subsequent years Hood & Morton built another factory in Denmark.<sup>(9)</sup>

A different style of company floation developed in the new phase which began in 1895 with men who had learned the business in earlier companies. This trend was characterized by the break-away from Hood & Morton in 1897 of trained personnel with some external financial backing. The firm was Henderson, Morton & Inglis, formed by the salesman, the tenter and the cashier of the older company with the support of John Galloway a Strathaven silk manufacturer.<sup>(10)</sup>

As competition intensified after 1895, and new companies tended to concentrate on lace production alone, machine numbers settled at a low optimum. While Alexander Morton & Co. reached a total of forty-two, and companies in the middle period preferred nine to twelve, the latest firms reduced these further to six or seven as the most suitable in number. In a two season/

(9) "W.S." 23rd January, 1891. and below p. 108.

(10) The only companies set up after 1887 without trained personnel from older firms were Thomas Pollock & Co., and R. Forrest & Co., and Pollock's had produced power-loom madras before making lace.

season trade<sup>(11)</sup> affected by broad fashion cycles,<sup>(12)</sup> idle productive capacity was a serious handicap. In time, turn-over per lace weaver and by each machine proved most economic in firms holding from six to ten looms,<sup>(13)</sup> and utilization of a high number of machines proved to be advantageous only in temporary booms.

Table 7, page 102 shows the number of companies in Scotland holding from six to ten machines in comparison with other larger groups. The figures (not complete) are for 1936-40, but are not radically different from those of years preceding the First World War.<sup>(14)</sup> Eighteen of the companies then held 142 machines out of a total of 366, averaging just under eight each. Of the remaining eleven companies with larger numbers most of them had been established in the first phase of building between 1875 and 1887 and the majority of these operated/

(11) The busiest periods in the industry occurred twice during the year determined by the purchasing habits of the consumer. Wholesale buyers made their selections in May and June for the Christmas trade and again in October and November for Spring, promoting much business activity at these times. Other large orders for the Netherlands and America were spread over the quieter periods of the year.

(12) The broader cycles seemed to produce booms and depressions seven years apart in the Irvine Valley lace industry.

Peaks: 1893 1900 1907 1914 1921 1928 1935

Troughs: 1890 1896 1903-04 1911 1917 1924 1931

(13) Working Party Report, "Lace" 1947, p.64.

(14) Sound investment in machinery was an important factor in the lead Scotland took over Nottingham in production and efficiency. There were twice as many new and re-conditioned machines in Scotland of greater average width.

operated also in textiles other than lace.

TABLE 8

Size of Scottish Lace Firms by Number of Machines.

| <u>Number of<br/>Machines</u> | <u>Number of<br/>Firms</u> | <u>Total Number of<br/>Machines in Groups</u> |
|-------------------------------|----------------------------|-----------------------------------------------|
| 6 - 10                        | 18                         | 142                                           |
| 11 - 15                       | 6                          | 75                                            |
| 16 - 20                       | 2                          | 35                                            |
| Over 20                       | 3                          | 114                                           |
| Total                         | 29                         | 366                                           |

(Working Party Report "Lace" P.62)

After 1895 specialization in lace or madras alone became the rule, and with this type of organization smaller establishments with fewer lace machines were strong competitive elements in the trade. Reduced availability of capital circumscribed the projects of the later entrepreneurs, making the scale of their operations smaller, but large enough to obtain a working profit in competition with their predecessors.

When firms with six to ten machines could maintain a healthy and often superior position, few benefits appeared to accrue from greater size. Although many arguments might be posed in favour of combination to prevent harmful forms of competition, the economies of large-scale production were not subject to proof in the case of the lace furnishing industry. The quick expansion of the lace factories over a short period set a traditional pattern in scale and organization of the lace firms. The great majority of them burgeoned about the same time, were successful in the trade and gained in size simultaneously so that none was able to absorb the other or drive it out of business. In difficult times even less efficient firms did not suffer to the point of bankruptcy. Instead goods were marked down, quality cut, margins reduced and the product slowly debased until a new surge of fashion redeemed it. In a highly competitive fashion industry the small firm with a tightly controlled organization of activities could hold its own against a larger company, and a manager in a small firm with an eye for design and a good line in production/

production could outstrip all competitors for a spell in sales. Casualties in the furnishing trade, when they occurred, were not to be found in the district, but in the original lace producing area in Nottingham.

By 1915 thirty-four lace companies had been formed in Scotland, thirty-two of them in Ayrshire, and by the same date most of them had been changed from partnerships into private limited companies employing combined share capital of £500,000.<sup>(15)</sup> This development began early in the 20th century with Hood, Morton & Co.,<sup>(16)</sup> but the capital sums of these companies do not throw much light on their comparative size or strength. This is borne out by Table 8 which shows very little relationship between the size of each firm through the number of operatives and the amount of power employed, or the number of lace machines installed and the nominal capital of each firm. /a

The number of workers with J. & J. Wilson lay between that of Hood, Morton & Co. and Alexander Morton & Co. yet their nominal capital on becoming a limited company was only £10,000 one-fifth of Hood, Morton & Co. and one-twelfth of Alexander Morton & Co. and a half of Cleland, Campbell & Co. with only fifty employees and seven machines. On the other hand, Johnston, Shields & Co. had nominal capital in excess of Alexander Morton & Co. which was undeniably the largest business of its kind in the country.

TABLE 8

Nominal Capital, Number of Employees and Machines, and Motive Capacity of Five Early Lace Firms. <sup>(17)</sup>

| <u>Name of Company</u> | <u>Date Established</u> | <u>No. of Machines</u> | <u>No. of Employees</u> | <u>Motive Power H.P.</u> | <u>Nominal Capital £</u> |
|------------------------|-------------------------|------------------------|-------------------------|--------------------------|--------------------------|
| Alexander Morton       | 1875                    | 42                     | 700                     | 600                      | 120,000                  |
| Hood & Morton          | 1876                    | 10                     | 300                     | 70                       | 50,000                   |
| J. & J. Wilson         | 1877                    | 12                     | 400                     | 80                       | 10,000                   |
| Johnston, Shields      | 1880                    | 12                     | 200                     | 75                       | 130,000                  |
| Cleland & Campbell     | 1886                    | 7                      | 50                      | 25                       | 20,000                   |

(Register of Companies, and "W.S." 1st Aug. 1890).

- The/
- (15) "W.S." 21st November, 1913.
- (16) Partnerships changed to limited companies after the loss of Joseph Hood's personal fortune following the collapse of the Ayrshire Knitting Company, a firm which late in life he had been persuaded to co-partner and finance.
- (17) The figures are for 1890 apart from the statements of nominal capital which come from the first prospectuses of each company after 1901.

The operating patterns laid down in the early partnerships continued into the period of the limited companies and very little change occurred in the transition from one to the other. Re-investment for consolidation and expansion came from within the industry and similarly the shares of the limited companies were acquired by the original partners or their successors. Exceptions to this rule were found in the number of widows and spinsters who had loaned money at the beginning and who were at this stage either paid out or had their stakes transferred into holdings in the firms.<sup>(18)</sup>

In one instance 1530 one pound, cumulative, preference shares were issued in this way, while Hood, Morton & Co., which had a strong Christian element and a Liberal tradition which stressed the mutual benefits of capitalism for workers and employers alike, encouraged employees to invest in the firm. In their first company registration they allocated 2015 one pound, ordinary shares to them. The workers involved included nine of their lace weavers. Control, however, remained fully in the hands of families which had established the lace factories, the members becoming working directors.

When the first prospectuses were issued the companies were under-subscribed, the balance being taken up over the years. In 1901 Hood, Morton & Co's nominal capital was £50,000 but only £23,900 of this was immediately allotted. The rest of the shares were deliberately not issued, but were left available for later subscription, a common practice among most of the companies.<sup>(19)</sup> In consequence the statement of nominal capital was seldom raised by much and the £50,000 of Hood, Morton & Co. at its inception as a limited company had/

- (18) The financial stability of the companies in later years was supported by the loyalty of minor subscribers whose shares were retained in their families over two or three generations. Few considered selling out for they were helping to sustain a local industry which normally employed them and their relations and gave them a feeling of substance.
- (19) The method avoided additional legal fees, the trouble of calling special meetings and the possible resistance of some shareholders to an increase in share capital.

had only been augmented by £5,000 sixty-five years later. (20)

The factors which led to the lace companies operating on a small scale and continuing in that way were numerous. The success of each lace company depended largely on the artistic sense and the accumulated experience in textile production of the owner-managers and every owner had to maintain personal supervision of every province of his firm. Although orders were finally placed by the wholesale and retail buyers, decisions on lines to go into production were made between the office and the designing room. Account had to be taken, not merely of the visual aspects of the design, but also of technical features, such as quality and, therefore, of costs.

Minor managerial functions were delegated to relations and small shareholders who often took care of the subsidiary departments of the business. There was always consequently good communication in each firm. Everyone in a supervisory capacity had an interest in a smooth flow in the manufacturing process. This was especially important where yarn arrived at the factory and re-emerged as finished goods, each department being attendant upon the next in line. It was in the field of factory organization that the Ayrshire manufacturers developed an original system in the furnishing section vastly superior to the traditional methods of Nottingham, and which was later adopted by France and America. (Vid. below pp. 119, 120 and Diagram 3, p. 120 )

Another consideration encouraging modest size lay in the trading position of the furnishing trade which experienced two slack and two busy periods annually, requiring much ingenuity and good sales promotion to spread production as evenly as possible over the year. The larger the plant, the more difficult this became, particularly after a firm was established in their midst (J. Muir & Co.) wholly involved in production in the brown, on commission for other manufacturers. Such a company was able to ease pressure on individual firms working at full capacity, but flooded with orders and pushed for a delivery date by shippers and overseas agents. Serious threats/

(20) Register of Companies, (Hood, Morton & Co. Ltd. 1901).

threats to survival also occurred in the wider fashion cycles which at regular intervals brought a slump to the trade. In these circumstances no firm wanted to absorb the plant of another while struggling with its own, for the larger firm made larger losses which in the short term might prove fatal.

But equally important and probably decisive in maintaining the small scale of the lace companies was the attitude of the owners. Their extreme individualism prevented full voluntary co-operation. Moves towards this were never completely successful, even in the face of united action by the Union and was only achieved then in the limited sphere of opposition to demands for improved conditions or wages. Their jealous concern for their own firms remained immutable during the worst depressions and precluded all attempts at co-operation in matters of mutual interest, such as in yarn purchase or in introducing a common selling price. Finally, few of the manufacturers wanted to make a fortune. Their firms, including the smallest properly conducted, were large enough to afford a good living and in contrast to earlier times the goal of a successful business life could be attained within the locality and within their own community.<sup>(21)</sup> This is well borne out by the persistence of family control of the industry to the present day.

#### Tariffs Surmounted.

One of Alexander Morton & Co's representatives claimed in 1913 that he had sold its goods "not only in the United Kingdom, but in every country of Europe (save one), on every continent,/"

- (21) Two Newmilns men had followed a traditional path to business careers through emigration, but both found it worthwhile to become principal shareholders in lace firms. William Morton, a boot and shoe manufacturer of Birmingham owning a chain of retail outlets was concerned in William Morton & Co., and after his brother's death, in Hood, Morton & Co. David Borland built up a large business in Greenock in the importation, processing and sale of sugar, and was also a co-partner in Morton, Young & Borland.

continent, and in most of the large islands of the world."<sup>(22)</sup> By that date a healthy position had been reached after twenty years of vigorous competition at home and abroad. Most of the large English wholesale and export houses which formerly had met their requirements in Nottingham had bought great quantities of Ayrshire lace and, although Britain had developed as the leading market, the United States and the industrialized countries of Europe took a large percentage of the production of lace furnishings from the Irvine Valley.

This had been achieved in spite of resolute competition from new centres of the furnishing trade in France and the U.S.A., as well as the furnishing section in Nottingham. In the 1880's it had seemed as if an unlimited market for lace were emerging to compensate for losses in woven textiles, mainly in plain and printed cotton piece goods, silks and lappets. Demand for these declined in the Far East following the growth of factory production in India. But in the early 1890's all types of British cotton exports suffered in every market,<sup>(23)</sup> and the tendency to economic nationalism could be seen in the proliferating import barriers raised by foreign governments. This began to affect lace, for both France and the United States were intent on creating a substantial lace industry, and, as there were no impediments to the export of Nottingham lace machinery, new companies mushroomed in these and other countries during this decade just as they had done in Ayrshire ten to fifteen years before.

Much of the machinery went to Scottish and English lace companies abroad. The Ayrshire manufacturers realized that foreign tariffs were a threat to their lace exports and a number of companies planned to meet this by the expansion of their businesses behind the barriers of countries where they had a sizeable market. Because of the infinite variations in weight, design and quality of lace it was impossible to apply duties/

(22) "W.S." 8th August, 1913.

(23) "Studies in British Overseas Trade, 1870-1914." S.B. Saul, 1960, pp.107-109.

duties other than ad valorem charges. They were not however fully effective, for a larger amount of goods were exported in the brown to be finished abroad, and the manufacturers also prepared to defend their interests through reductions in costs and prices. Yet, fears were expressed that the tariffs and cheap labour of the countries involved would place them "in the same relation to Ayrshire lace as the latter does to Nottingham." (24)

France placed duties on cotton imports in 1881 and 1892. Italy imposed them in 1887, followed by Spain in 1892, while the U.S.A. introduced new tariffs in 1883, 1890 and 1894. The restrictions set by the Spanish government were only harmful to Ayrshire in preventing free entry of lace goods to all but one of its firms, for through the enterprise of Johnston, Shields of Newmilns, it gave to that Company the monopoly of producing lace furnishings in Spain and her Colonies. These were manufactured at the firm's factory in Barcelona after it opened in 1893. The same company had a factory in Goteborg, Sweden by 1891 and later erected another in Oslo. (25) Another Newmilns firm had a lace factory in operation in Copenhagen, for in 1890 while production slackened off at home Hood, Morton & Co. established a branch in the Danish capital.

The U.S.A. was a profitable market for lace goods. A Tariff of forty per cent in 1883 made little difference to the flow of imports as it was nullified by a reduction in prices by British and Continental manufacturers. The McKinley tariff of 1890 raised the duty to sixty per cent and ushered in a lace furnishing industry until ten factories operated in this field by 1893. (26) One of these had been founded by the Darvel firm, Cleland & Campbell. Its factory in Columbia, Pennsylvania had been erected by private enterprise and leased to the/

(24) "W.S." 23rd January, 1891.

(25) Newmilns weavers introduced football as well as lace to Sweden and Spain:—"Goteborg Football Club. The opening match was played on the Heath ... Most of the members of the above club hail from Newmilns, and the game seems to create some interest in this place." "W.S." 16th October, 1891.

"It was only in season 1900 that football attracted any attention in Spain, and the real pioneers of the game were the Escoces F.C. - a club all Scotsmen, and principally composed of workers in the works of Johnston, Shields & Co. in Barcelona." "W.S." 26th April, 1901.

(26) Ibid. 25th August, 1893. There were seven in Pennsylvania and one each in Massachusetts, Long Island and Texas.

the Scottish company which believed the new tariff would have a crippling effect on its business, as ninety five per (27) cent of the product of its Darvel factory was sold in America.

Unfortunately for Cleland, Campbell & Co. the Wilson tariff of 1894 reduced the duty to forty per cent and made it easier for Scottish lace exports to undercut American manufacturers. However, even before the new tariff came into operation a spokesman of the Darvel company declared that

"New York importers have purchased goods from our firm in Scotland, paid sixty per cent duty and five per cent freight and yet have been able to land these goods, exactly alike in every respect, at a lower rate than we can possibly sell them from our Columbia mill. The cost of our goods is made up principally of cotton and labour. In Scotland we pay sixteen cents for cotton yarn, in Philadelphia nineteen cents ... The average weekly wage of a lace weaver is five dollars, in Columbia fifteen dollars." (28)

He maintained also that as soon as the McKinley tariff had raised the duty from forty per cent to sixty per cent in 1890, manufacturers in Scotland and Nottingham had reduced prices from something between fifteen per cent and twenty per cent. Thus in the face of these protective duties the Scottish industry was able to sustain effective competition with the furnishing section in America. Exports to that country had helped to place Ayrshire lace companies on a sound basis in the 1880s and it remained an important market for them until the First World War when the duty was raised to ninety per cent.

The American tariffs might have curbed, but did not exclude foreign lace. Under duties of sixty per cent and then of forty per cent, imports still increased from £2m annually between 1890 and 1894 to over £7m between 1912 and 1914. But the growing efficiency of European lace production began to affect the sale of British goods in America. Although these increased gradually/

(27) Ibid. 30th September, 1892.

(28) Ibid. 15th December, 1893.

gradually in value during the same period, proportionately they declined, for they rose only from £600,000 to £1m.<sup>(29)</sup>

The Nottingham machine builders sold to France, Germany, Belgium, Italy, Scandinavia and Russia, and in these countries Scotland struggled to hold her sales even though a rising standard of living in most of them kept markets expanding in the later years of the 19th century. France in particular proved to be the greatest rival. With its long history of lace-making and early transfer into all new kinds of machine-made lace, added to its determination to protect its industry, it established itself as a powerful competitor and eclipsed British lace goods within its own frontiers and invaded countries traditionally supplied with them.<sup>(30)</sup>

Meanwhile, sales of Ayrshire lace were beginning to mount in British Commonwealth countries, in the West Indies and South America, Egypt and the Mediterranean, and in what was to become one of the most important and stable markets up to the Second World War, The Netherlands and its colonies in the East Indies. The fears of the Scots that tariffs and foreign competition would ruin them proved groundless. They maintained their success through the efficiency and buoyancy of their industry, strong in capital investment, based on a long tradition of textile production, and able through its establishment in difficult times to take full advantage of the upsurge in economic activity after 1896. From that date until the First World War, the Irvine Valley outstripped both France and the U.S.A. in the construction of factories for the lace furnishing trade.

#### IV.

##### Productive Supremacy.

It is difficult to establish the degree of profitability of/

(29) Saul op.cit. pp.147-148.

(30) Nottingham firms were also quick to open up behind foreign tariffs. As well as building Clyde Lace Works, Baltic Street, Glasgow, T.I. Birkin & Co. of New Basford, Nottingham operated pre-1914 in Oelsnitz, Saxony; Chester, Pa., U.S.A., and in Warsaw, Russia.

of the lace firms in the period 1875-1915.<sup>(31)</sup> A new company which started up at the beginning of this century showed profits of fifteen per cent to twenty per cent in the first three years of operation. Twenty per cent seems a fair average for the period as a whole, for, although profits fell below this in cyclical recessions, it is known that annually in the early years of the trade a number of companies almost doubled their capital. Proof of the amazing prosperity of the lace furnishing trade at the end of the 19th century and of its high profit margins can be seen in Cleland & Campbell's £25,000 investment in a lace company in America after only six years' operation in Scotland.

After 1896, following a slackening of momentum caused by foreign competition and tariffs, the trade gathered strength again. Expectations remained high. There was no lack of local men willing to plunge into a business career as a lace manufacturer, and external financial interests turned their attention towards the lace companies with a view to acquiring them. In 1900 a Mr Scott Lings, who had already organized the Fine Spinners' Association and the Woolcombers' Association, looked at the lace industry on behalf of a syndicate to try to combine all the Scottish and English lace companies,<sup>(32)</sup> but the tendency towards combination which developed in many industries at the beginning of the century could not penetrate the lace trade.

At this period, some economies could have been achieved in every stage of production in machine-made lace by large scale operation, especially in designing and marketing. Preparatory and finishing processes might also have been centralised and brought under the control of a lace association giving a watertight vertical combination in Britain from the forward buying of cotton crops in America and Egypt to the release of finished goods to retail outlets, but the lace manufacturers did not see why they should relinquish their hold on/

(31) As late as 1965 an efficiency study of the trade in Scotland reported that "in our comparatively wide experience of British industry, we have never before found such wide variations in the results achieved between small companies in a tightly knit industry in one local area." Survey of Six Member Companies.

(32) "W.S." 12th January, 1900.

on a profitable and expanding business. (33)

Initially Scott Lings obtained a degree of co-operation in Scotland and in England, but the scheme collapsed after four meetings, the representatives of the individual firms being unable to agree on the financial offer that should be made to each of them. In the long run the interests of the trade were better served by small owners who were determined to hang on through depressions to regain lost ground in the recovery. Over one hundred years in the cotton trade had taught this lesson, learnt in the time of the handloom and confirmed in the days of the lace machine. Large remote combines on the other hand were inclined to cut back severely in slumps by paying off operatives and closing down units which could not again be re-opened with the necessary skills re-established. (34) But this was not in the minds of the Ayrshire lace manufacturers when they refused the proposals. They decided from self interest over the immediate offer, and consideration for their personal future, but their action benefitted others possibly by saving the lace industry in Scotland. (35)

After the abortive negotiations of 1900, the independent principle re-asserted itself. The industry moved into its most competitive phase and its business practices continued undiminished in the jealous furtherance of the fortunes of each company. Up to the First World War the economies which might have followed from large scale production had to be promoted by intensive methods, many of them of the primitive kind common to the period such as longer hours and pegged wage rates, but also by others more appropriate and effective in improving production/

- (33) Up to 1914 only one Scottish lace firm went out of business. R. Muir & Son was sequestrated in 1904 presumably through poor management, for the plant was immediately acquired by A. & J. Muir and run successfully.
- (34) Four Darvel firms for various reasons came within the orbits of two large combines and a syndicate, English Calico, Great Universal Stores and the Glasgow Finance Co. The factory owned by the English Calico closed down. Two others were re-posessed by local interests, but one of these recovered by the original family failed, for in the interim the smaller shareholders had withdrawn and a mainstay of the company lost.
- (35) Combination was again mooted in 1927. The proposal came from within the trade and was favoured in principle by most of the Scottish firms, but not so much by Nottingham, making agreement impossible. Manfs. Assoc. Minutes, 15th March, 1927.

production and reducing cost. (Vid. below Chapter 7)

TABLE 9

Exports of Lace Products of the Principal Exporting Countries.

|                | <u>1913</u>            |                              | <u>1938</u>            |                              |
|----------------|------------------------|------------------------------|------------------------|------------------------------|
|                | <u>Value<br/>£,000</u> | <u>Per Cent<br/>of Total</u> | <u>Value<br/>£,000</u> | <u>Per Cent<br/>of Total</u> |
| United Kingdom | 3,598                  | 38.5                         | 1,392                  | 31.8                         |
| France         | 3,556                  | 38.0                         | 1,077                  | 24.6                         |
| Germany        | 1,366                  | 14.6                         | 533                    | 12.2                         |
| Italy          | 204                    | 2.2                          | 478                    | 10.9                         |
| Switzerland    | 229                    | 2.4                          | 162                    | 3.7                          |
| Czechoslovakia | -                      | -                            | 108                    | 2.5                          |
| Belgium        | 226                    | 3.6                          | 56                     | 1.3                          |
| China          | 19                     | 0.2                          | 322                    | 7.3                          |
| Japan          | -                      | -                            | 216                    | 4.9                          |
| U.S.A.         | 47                     | 0.5                          | 36                     | 0.8                          |
|                | <u>9,355</u>           | <u>100.0</u>                 | <u>4,380</u>           | <u>100.0</u>                 |

(Based on the Working Party Report "Lace" p.21)

In the search for greater efficiency the Ayrshire firms were eminently successful, outdistancing all others in the furnishing trade, and making emulation of their system the only means of adequately competing even when sheltered by tariff walls. Britain throughout maintained its position as the largest lace-producing country and was still the leading exporter of lace in 1913, after other countries which had entered the field had enjoyed ample time to develop.<sup>(36)</sup> As competitors for export markets/

(36) By 1900 skilled lace workers were prevented or dissuaded from entering the U.S.A. "The Board of Enquiry of the U.S. Immigration Commissioners has decided that, as lace-making is not a new industry in the U.S., twenty-four persons who have arrived from a town near Nottingham for Mr. Dowie's contemplated lace factory in Illinois, should be deported as violators of the Contract Labour Law." "W.S." 23rd November, 1900.

The American Union also set up barriers. "A letter from America intimating the entrance fee into the A.L.O.U. of America was now increased to 100 dollars. Condemned as being opposed to the principles of trade unionism. The fee for joining from America to be £5." Union Mins. 10th August, 1907.

markets they reached their peak before the First World War and faded thereafter. In Table 9, p.113 France is shown with thirty-eight per cent of total world exports in 1913, but twenty-five years later this had declined to twenty-four per cent, and other producers had gained and lost at each others expense. American exports hardly moved at all, but, with its large curtain section it proved a strong competitor of British goods in its own home market.

TABLE 10

| <u>Value of British Cotton Lace and Muslin Goods</u>                                          |                               |          |
|-----------------------------------------------------------------------------------------------|-------------------------------|----------|
| Type of Product                                                                               | England, Wales<br>and Ireland | Scotland |
|                                                                                               | £                             | £        |
| Cotton Net including all<br>Nets made on Net Machines                                         | 1,081,000                     | 12,000   |
| Cotton Lace Curtains and<br>Piece Goods made on<br>Curtain Machines                           | 665,000                       | 906,000  |
| Cotton Lace and Articles<br>thereof made on Machines<br>other than Net or Curtain<br>Machines | 2,482,000                     | -        |
| Muslin Curtains and<br>Piece Goods                                                            | -                             | 167,000  |

(Census of Production 1907 p.361)

By this date also, the Scottish manufacturers provided the largest proportion of lace furnishings, having surpassed the Nottingham total before the first Census of Production in 1907. The comparative values of the major lace textiles of Scotland and the rest of Britain (mainly Nottingham and district) are given in Table 10. Scotland was producing about one-third more than Nottingham in lace furnishings, only a relatively small amount in plain nets, but still carried on its trade in power-loom muslin curtains, traditional goods unrepresented in England.

The number of curtain machines listed in the Census is 692,<sup>(37)</sup> more than half of which were installed in Scotland, making/

(37) Census of Production 1907, p.318.

making it then and subsequently, the largest concentration in the world. (38) Within thirty years of the arrival of the first machines the Ayrshire manufacturers had captured the greater part of the trade in its product from the parent district, and henceforth made its further development their special concern.

(38) Number of lace furnishing machines in Scotland and Nottingham on selected dates:-

| <u>Date</u> | <u>Scotland</u> | <u>Nottingham</u> |
|-------------|-----------------|-------------------|
| 1923        | 390             | 314               |
| 1931        | 386             | 374               |
| 1937        | 381             | 322               |
| 1946        | 383             | 258               |

CHAPTER 7

CONDITIONS OF WORK

I

From Loomstead to Lace Mill.

When the lace machine was introduced into the Irvine Valley in 1875, muslin weaving was already over the edge of its final decline, although most of those employed in it would not at the time admit it, being used to recurring booms and slumps. Increasing numbers were thrown out of work in Newmilns, Darvel and Galston as orders for the looms diminished, and the population dwindled in the three towns. (Vid. Table 12 p.158 ) In a situation where there was a superabundance of idle workmen in the district skilled in making textiles, and the promise of unlimited sales once the first batch of lace curtains was unrolled from the beam, the problem forced on the new lace manufacturers was how were the men to be attracted into the lace mills?

While hope still remained for a renewal of the handloom trade it was difficult to persuade the weavers to enter the factories. Up to the final quarter of the 19th century, they had seldom known any curtailment in their freedom to decide when they should work or when they should abandon work, once they had earned a sufficiency for their families' livelihood. (1) In winter the round stone pacers were still detached from warp beams for curling as soon as the ice held, while the shuttle lay inactive until it was too dark for play. Few craftsmen were prepared to suffer the indignity of answering a factory whistle without inducements superior to those given to men who left weaving to go into unskilled work on the railways, in the police or in labouring.

Still, as the 1870s passed and no great resurgence of work occurred in the handloom trade, a growing number left the district and most of the young weavers embraced the opportunity to be engaged in the lace mills, willing to accept security of employment/

- (1) "W.S." 26th May, 1893. Witness in the Loudoun right of way case: "The weavers were their own masters, and worked what hours they liked. They did not work much on a Monday, nor on a pay day. On the latter day, as soon as they got paid in the afternoon, they went for a walk."

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employment as compensation for the physical restrictions of factory life and its regime of regular time keeping and attendance. In doing so, they adopted a system alien to their experience, but carried into the lace and madras factories much of the leisurly approach of handloom days which still remains a feature of these places today.

They found the factories not unpleasant workplaces. Completely new structures, they were clean and well lit with only the lace machine shed noisy and dirty.<sup>(2)</sup> Even there, the thunderous beating up action of the massive lace looms was of a rhythmic nature and did not have a shattering effect on nerves and hearing of an engineering or joinery shop, while all the time the operatives worked in conditions which permitted social contacts, long prized by the handloom weavers, through occasional movement away from the task and intermittent conversation with workmates.<sup>(3)</sup>

At first, the hours were agreeable to the lace workers. Orders for the product were heavy and continuous with the factories operating a twenty-four hour day, broken up into three shifts of eight hours. In 1881, twenty-seven looms were staffed by eighty employees, giving more than three weavers per day for each loom.<sup>(4)</sup> So much material was produced by the system that it set a problem for management. Women and young persons were restricted by statute to certain daytime working hours, making the organization of oncost and finishing tasks difficult. A number of companies broke the law to meet emergencies by employing women and girls on late shifts and were brought before the courts by the factory inspectors.<sup>(5)</sup>

The first division of interest between management and work-force/

- (2) The lubricant for the shuttles in the lace machine is graphite, or black lead, shaken from a muslin bag by the weaver. It penetrated every area of the loom shed and blackened every surface.
- (3) On the floors and tables of the sheds the lace workers replaced the handloom weavers' winter curling with "summer ice" played by pushing metal discs along surfaces polished with black lead.
- (4) "W.S." 11th June, 1881. At this time miners in Galston had 18/- to 19/- per week.
- (5) Ibid. 5th February, 1886. Wm. Morton & Co. were fined £33 for employing eight women and three girls after 6p.m. The factory inspector reported that "there was a great deal of difficulty carrying out the Act in Newmilns, where there had always been great irregularity."

:force occurred over the question of hours. By 1888 the number of machines had increased to 110, still working round the clock exclusive of Sundays. In 1889, pressure was brought to bear on their workers by the firm of Stewart, Moir & Muir. They wished to augment the hours of work by changing from three shifts of eight hours to two of ten hours. The weavers in Newmilns met and with success resisted the proposal,<sup>(6)</sup> but it was clear that further efforts would be made to interfere with established practices, and in the following year the Newmilns Union was formed.

Three years later David Ligat & Sons, Leno and Lappet manufacturers offered their workers a reduction in hours from fifty-six to fifty<sup>(7)</sup> and in the same month a lace company, Johnston, Shields announced its decision to introduce an official eight hour shift.<sup>(8)</sup> What appeared to be a generous offer was invalidated by overtime requirements. Over the next twenty years the weavers by concerted action in each factory strove to obtain additional payments, first of time and an eighth and then of time and a quarter, for the overtime which they were compelled to work. The intention of the employers to grant an eight hour day and forty-three hour week at the height of the agitation of the Eight Hours' Movement was laudable if sincere, but it was never implemented until after the Second World War. Five years after their declaration and, following a lockout, a twelve hour day was imposed for a while on the workers at a standard rate throughout.

The benefits of comparatively cheap labour provided the Scottish manufacturers with a capacity to devastate the Nottingham furnishing trade, but their unique method of labour deployment conferred additional advantages. On the handloom the weaver's main occupation had been to throw the shuttle, but he/

(6) "W.S." 25th January 1889. This was the first example of serious friction between employers and workers, for on this occasion the workers were notified "that all will be discharged on Saturday first, and the mill will close till they comply with the masters' terms."

(7) Ibid. 22nd January, 1892.

(8) Ibid. 29th January, 1892.

he had also attended to most of the ancillary work concerned with the operation of his loom. He beamed and dressed his warp and heddled-in or assisted in heddling-in the web. He also cared for the jacquard and harness, doing the mechanical tasks involved on his own. He was better suited than the original Nottingham frame knitters to transfer to lace weaving and its oncost jobs, but in the event he accepted greater specialisation in practically confining himself to the front of the loom, the cloth making part, where attention had to be concentrated on thread breakages and repairs with only occasional visits by ladder to the high positioned jacquards or to the harness strings at the rear. (Prints 6 and 7, Pages 216, 217)

The employers in the Irvine Valley divided up the weaver's job into a number of clearly defined operations and allotted the subsidiary tasks of supplying the loom, and maintaining it in good order, to other employees. In contrast, in Nottingham the twisthand continued as a person unapproachable on his pristine heights at his machine. Diagram 3 (p.120) deals with the process of lace making, but, whereas shuttle sorting, spooling and tenting were allocated to separate operatives in Ayrshire, the twisthand in Nottingham retained each as part of his work. The Scottish system encouraged the use of wider machines, but its novel approach was resisted mainly through conservative trade practice by the Nottingham men who feared a reduction in status and remuneration. By adopting the Scottish method they would have achieved greater production and through it a higher financial return, for, although Scottish rates remained lower, earnings chased those in England until they approached uniformity.<sup>(9)</sup>

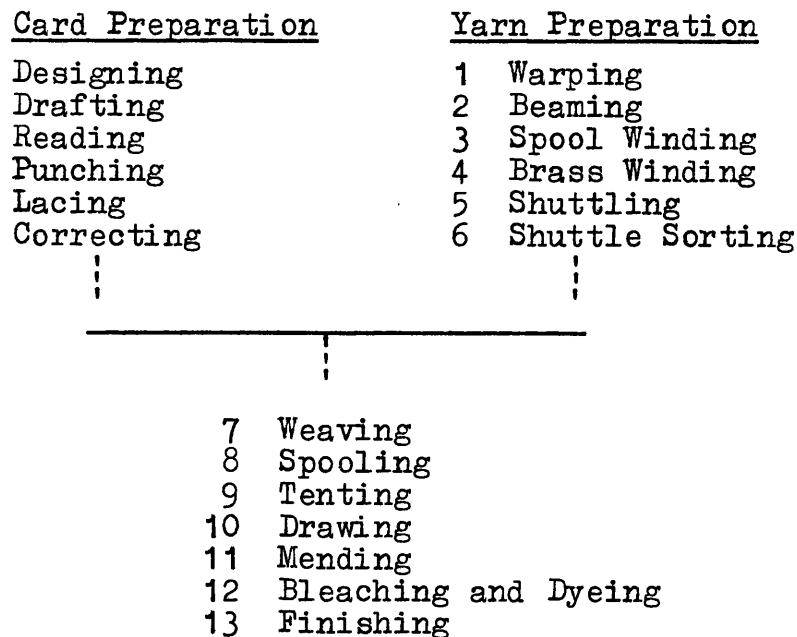
In drawing and mending among the women workers there was also greater productivity in Scotland. These operations were again separate with expert scrutiny of the cloth carried out by drawers and marked where necessary for repair, while in Nottingham menders examined the cloth they would themselves repair. /

- (9) The rack output of the Scottish weaver reached a figure of fifteen per cent higher than the Nottingham twisthand, (Vid. "Working Party Report" p.67). Through this, although Scottish rates were lower, earnings were similar. By 1906 the weaver in the Irvine Valley earned "up to 28/4d to the Nottingham twisthand's 39/2d. Cuthbert, op.cit. p.270.

repair. Foreign countries which later entered the trade were therefore attracted to the Scottish system.

DIAGRAM 3

Flow Diagram of Lace Making



Linked to the question of hours and wage rates was the problem of manning. At the end of last century and the beginning of the 20th century as the number of new companies increased, so also did competition within the district. But there were few guides to a competitor's methods and efficiency, and fewer indications of means by which costs of production could be cut.

The separate factories were secret enclosures and employers' associations by which information might have been pooled, were non-existent or short-lived. Personnel might move occasionally from one factory to another, but carried with them only their skill and an image of factory layout. The mysteries of overall production and returns were carefully retained by management, which was normally a closed family unit.

After the failure of attempts to persuade weavers to work on two machines simultaneously, it became apparent to manufacturers that longer working hours could not be long maintained against strong and aggressive union activity. A new trend therefore developed which seemed to favour a move towards ever/

ever wider machines. The weaver still worked one machine, but it grew ever larger and there appeared to be no limit to the width they might reach. But they could not be introduced quickly. Indeed it looked as if lace machines were able to last forever and because of their high capital cost would not be readily scrapped. The increasing size of the machines presented new problems both for management and for the individual weaver, but in a sense the problem solved itself. After passing 480" the machines stopped short of 490", halted by the technical difficulties induced by the strains created by torsion.

Since technical problems now limited a rationalization of labour practices and improvements in single operator productivity, the employers turned at last to the consideration of wage payments as a means of increasing production, and found themselves grasping a double-edged sword. Wage negotiations threatened the composure of their workers, but also demanded much from the employers in tightening up their business practice.

## II.

### Towards a Uniform Wage Rate.

When the industry was being established, the lace manufacturers offered a little more to his weavers than the amount earned by a steadily employed handloom weaver, although at the time few of them were fully employed. Their earnings rose slightly until in 1881, in comparison with the Newmilns Burgh scavenger's 20/- for a fifty-four hour week, the best lace weavers, about one-third of eighty employed, could make as much as 21/- to 24/- per week.<sup>(10)</sup> Between 1885 and 1912 the fixed wage of a weaver averaged 24/- per week, the first part of the period to 1896 being a decade of falling prices and an increasing standard of living for those in constant employment. The latter part saw a reversal of both these trends, when there was a drop of ten per cent in real wages in the country as a whole.<sup>(11)</sup>

In the earlier period the weaver enjoyed a relatively high wage, /

(10) "W.S." 11th June, 1881.

(11) Cole and Postgate, "The Common People," 1945, p.497.

wage, but by 1900 his position was beginning to be eroded, and the manufacturer facing greater competition resisted his wage claims. The drop in real wages did not truly reflect his loss. His task had become more exacting. In 1885 on a narrow frame of a width around 240", working a single jacquard, the weaver was able to earn as much as in 1905. But in 1905 he worked a double jacquard, a maximum width which had nearly doubled to 420", and with machine operation which had been greatly speeded up. Productivity had been much improved without a corresponding increase in remuneration for more difficult work requiring greater care and concentration.

When the machine lace trade started, a standard form of wage payments eluded the efforts of employers and workers alike. It was customary for employers to give as little as possible, but they had no need to quibble too much over rates since in Nottingham, between 1880 and 1885, twisthands could earn five times as much as weavers in the Irvine Valley.<sup>(12)</sup> However as far as the men were concerned the only real measure of comparison was with handloom weaving in the district, and to those who sacrificed their independence for factory life it could only be a favourable comparison. They found the wages higher, the physical element practically eliminated and the cramped, hunched position of the handloom replaced by free movement back and forward along a machine.

The determinants of wage levels went through three phases between 1875 and 1915. Firstly, the employers had to offer enough to attract reluctant handloom weavers into the new trade, proffering rates above those paid to miners in local pits and to general and agricultural labourers and to railway servants. Secondly, in the late 1890s when the cost of living began to rise wages were pegged autocratically and maintained at the same level after a lockout. Finally, in industrial disputes which lasted spasmodically from 1912 to 1914 the workers learned to demand as much as they could wrest from their employers, taking into account the state of the trade, and thereafter this was their criterion.

It was a more difficult problem for the manufacturers. For them/

(12) Cuthbert, op.cit.p.270.

them there was the anomaly of two different systems of payment long established in the locality. In Darvel the weavers were paid by the piece, while in Newmilns and Galston they were on time rates. In Kilmarnock, Stewarton and Glasgow, only four companies in all, the Darvel method was adopted. The reason for this unconformity<sup>?</sup> can be found in the character of the owners of the two original firms and their style of operation. Alexander Morton of Darvel was the sole lace employer there for a number of years, where he initiated a piece-work system following the acknowledged pattern among handloom weavers, many of whom he had employed first while an agent and ultimately as an independent manufacturer. With a head start on all others in the burgh, Alexander Morton & Co. expanded at such a pace and to such a scale that Darvel for more than a quarter century was almost a company town.<sup>(13)</sup> Morton himself appeared to be the personification of Victorian commercial enterprise at its most urgent and purposeful stage. A self-willed and determined man, he had his own way in most things throughout the early and middle part of his career.

In contrast, although excellent businessmen, Joseph Hood and Hugh Morton, the first lace manufacturers in Newmilns, had long been respected members of the community and were men of substance and maturity before the lace industry arrived in the district. They held a leading place in local government, church affairs and the total abstinence movement. As practising Christians, convinced their faith should be a guiding principle in their business as well as their personal lives, they believed the labourer worth of his hire. They also desired to be acclaimed as fair employers by their workers, and the fixed wage continued to be part of their arrangements. This practice was followed by new companies in Newmilns and Galston.

In the first twenty-five years of the trade, however, the question of alternative wage rates was not an important issue. There was no clear or inherent superiority in either system of piece-rates/

(13) Alexander Morton & Co. had more machines than all their Darvel competitors for twenty years, and had twice as many workers.

piece-rates or set wages, nor could there be until some significant relationship was drawn between man hours worked and the total production and the price of goods of each company. At the beginning of the 20th century the companies were still very much in the dark about their own costs and completely so with regard to all others.

Very soon conditions demanded a change in approach. Competition intensified further as raw cotton prices rose from 1902, reaching a peak in 1904.<sup>(14)</sup> Methods of payment consequently came under careful scrutiny. Two events then led the manufacturers towards the path of co-operation. At the end of that year occurred the sequestration of R.Muir & Son; and a year earlier a second association of manufacturers had been formed.<sup>(15)</sup> This new body was intended to encompass all the Scottish lace companies and indicated a feeling among the companies that there was a need for some form of co-operation to avoid practices harmful to the trade.

The Association very soon took up the question of the earnings of the labour force, and agreed on maximum rates for a number of ancillary workers including spool winders, brass winders/

- (14) R.E.Tyson, "The Cotton Industry," p.102. From "The Development of British Industry and Foreign Competition, 1875-1914." Ed.D.H. Aldcroft. 1968.

The high prices were the result of a poor crop and intense speculation in the U.S.A. causing British manufacturers to launch a scheme to encourage cotton growing in the colonies.

"Cotton Crisis: Messrs. Hendrie & Co. along with their employees, contributed a handsome donation to the funds of the British Cotton Growers' Association that has been lately formed in Manchester for the purpose of developing the cultivation of the cotton plant within the Empire, and more especially in our African Colonies. A guarantee fund of over £50,000 has already been raised." "W.S." 19th February, 1904.

- (15) Manuf. Ass. Min. 25th April, 1903. The first association was an ad hoc committee of Newmilns manufacturers formed to enforce a lock-out of weavers in 1897 and dis-banded the following year.

winders, shuttlers, menders and binders,<sup>(16)</sup> However, it left in abeyance the thorny problem of weavers' wages. Yet this had to be faced eventually, for, after a good cotton crop in 1905, yarn prices again began to rise until in 1911 they reached the highest level since the exceptional prices of 1904.<sup>(17)</sup> Also in 1905, Cleland's, the last independent local bleachworks, was bought over by the Bleachers' Association and finishing, which along with yarn and labour made up the largest items on the manufacturing account, came under pressure from a monopolist concern.

The manufacturers of Newmilns and Galston felt aggrieved, believing that in Darvel the weavers under a piece-work system were rewarded with approximately 1/- per week less for one hour's work more per day. They considered they bore an extra burden, when after a three month strike in 1908 in Alexander Morton & Co's factory in Darvel piece-work rates were reduced by seven and a half per cent on the decision of an arbiter.<sup>(18)</sup> That company asserted that it had been paying seven and a half per cent to ten per cent more than the average for the trade for around fourteen years, although there was no basis for such a claim. It was equally incredible for the employers in Newmilns and Galston to suggest that merely by paying piece rates their production would be increased and their product cheapened.

Whether the weavers worked on piece rates or fixed wages there was a maximum rack rate possible on the lace machine.<sup>(19)</sup> This was dependent on the time the machine operated, its width, speed of movement and quality of cotton, and this could not be improved upon by simply switching to a piece rate system. The maximum could only be nearer approached by the utilization of good cotton, efficient machines, careful and industrious workmen, /

(16) Ibid. 1st March, 1904.

(17) Tyson, op.cit. p.102, and annual yarn ratings in Manf. Ass.Mins.

(18) Union Minutes, 24th October and 19th December, 1908. This was the first large scale strike in Darvel, and was marked by a great deal of bitterness, with some sabotage and examples of victimization.

(19) For rack measurement see glossary, p.208.

workmen, able tenters and sensible management. The problem then as ever on piece rates was of scamped work, jealous workmen, and poor industrial relations arising from the perennial difficulties of operating a complex scheme which in the lace trade was infinitely worse than most others.

The weavers in Newmilns realised this when they pressed their Darvel colleagues to consider the set wage best when measured "against the troubles and worries of piece-work." They argued further before the employers that under existing circumstances "production is as high per hour in Newmilns as in Darvel and the manufacturers are not paying any higher per rack than the manufacturers in Darvel."<sup>(20)</sup> At the time there were still too many obstacles to the efficient management of a lace firm when delays in production were submerged under primitive piece-work methods.

On fixed wages, while workmen continued to be paid even when their looms were idle, management was obliged to concentrate on manufacturing difficulties, whereas under piece-work no payment was made for heddlings-in webs or for cleaning machines. Time lost in breakdown was not taken into account, and every circumstance which brought a machine to a standstill reduced the number of pieces produced. As late as 1916, when the question had long been resolved, workers complained to a company in Darvel that a complete set of spare shuttles was not available for every machine. When a change was necessary a weaver had to wait until the shuttles were taken out and refilled, causing a delay of several hours, a period of time for which earlier he would not have been paid.

The old piece-rate system was inefficient from the point of view of management and it also retarded the worker's capacity to improve his earnings. Both types of employers would have done better to refine the system of labour deployment they had initiated and which had proved so attractive to manufacturers elsewhere. Had they done this they would have avoided the contradiction involved in pressing for more production while illegally/

(20) Manf.Ass.Mins.13th January,1912.

illegally exacting penalties from weavers under piece-work,<sup>(21)</sup>  
whom they accused of damaging goods through negligence.<sup>(22)</sup>

Although they pressed for a change, the manufacturers of Newmilns and Galston seemed to realise that the piece-work system then in operation had no superiority over time rates in obtaining a reduction in costs, and what they really sought was a standard method throughout the trade. They practically acknowledged this in an ultimatum to their workers in a dispute in 1911. They offered the weavers 1/6 per week increase

"on condition that the Union agree and bind themselves that if, on or before the 1st April, 1912, the whole manufacturers and lace weavers in the west of Scotland do not accept the principle of set wages, the lace weavers of Newmilns and Galston will accept payment of their wages thereafter on the piece-work basis."<sup>(23)</sup>

With yarn and finishing prices rising they thought they could maintain a degree of control over costs if they could persuade their weavers to admit piece-work. Whether this could be demonstrated or not no longer mattered. After 1908 and the reduction of piece rates in Alexander Morton & Co. the other manufacturers became determined to enforce a piece-work system in their own factories. This was finally accomplished after two long industrial disputes which closed their works, first by a lock-out in 1912 lasting five weeks, and then by a strike in 1914 of nine weeks duration. Subsequently piece rates were applied throughout the Scottish lace industry, but it was not until/

(21) The lace manufacturers continued illegally to impose fines on lace weavers until 1914. Union Minutes, 23rd December, 1911. "Agreed that the General Secretary write to all employers, drawing their attention to the Factory Act, that it is illegal to enforce a fine without a written contract with their workers."

(22) Fines for damages had a long tradition in the textile trade and had been extorted from handloom weavers by weaving agents. Vid. "Reed Notes" by Thomas Bruce a Galston weaver, (1864).

"Trade it was slack an' wages sma',  
An waur than that to bear,  
Agents and Corks, in ruthless thra',  
Sought out each scob an' tear.

Down gaed their glasses on his claith,  
Where e'er a shot seemed missin',  
Wi' stoppages they wer'na laith  
His sma' returns to lessen."

(23) Union Minutes, Newmilns Branch, 14th December, 1911.

until after the First World War that the new practice could be fully implemented and by that time the trade had receded from its high water mark.

A conciliation committee approved the complete adoption of piece-work after the 1912 lockout, and the independent chairman appointed by the Board of Trade decided that the Union had not established "their contention that a piece-work system is impracticable in the Newmilns lace factories." However in his findings he clarified the main issues for employer and worker alike in the need for increased productivity in the trade, if it were ever to have the capacity to provide a competitive element with an attractive wage structure.

He found that the difficulties mentioned by the Newmilns Union in respect of the lack of facilities for measuring the output of the employees

"and the abnormal amount of time lost by stoppages, owing to defective material, equipment, etc. in the Newmilns factories are in the main matters affecting the proper organization of the factory. The equipment and the productive efficiency of the looms are capable of adjustment and could, and should be, considered and provided for in any piece-work list that is compiled."<sup>(24)</sup>

After the 1914 strike the workers acquiesced in the decision for piece rates, but the employers were compelled to accept other uniform conditions, demanded by a united work force. They obtained from the employers higher piece rates, an eight hour shift, an alternative time rate under certain circumstances of  $7\frac{1}{2}$ d per hour, and all prolonged stoppages were to be paid on the time rate and overtime of time and a quarter.<sup>(25)</sup> In addition a Joint Board, comprising of four representatives each of workers and employers, was empowered to meet to discuss problems in the industry as they arose.

The/

(24) Manf.Ass.Mins., 12th February, 1913. Report of the Proceedings of the Conciliatory Committee.

(25) The Newmilns Union refused to allow weaving apprenticeships, but the agreement in 1914 included regulations about learners, whereby in their first year they were paid a sum less per rack which was shared by the journeymen and the employer and in their second year the whole of the deduction went to the journeymen.

The employers did not lose by the terms of the final agreement. Increased competition had required them to organize the industry on a more rational basis, as they believed, to allow for more accurate costing, and with a spirit of compromise eventually attained between manufacturers and workers standard conditions were universally applied. Henceforth competitive advantage had to be won through manipulating a set of variables outwith the cost of labour, yarn and finishing. Attention had to be directed to questions of efficient manning, a progressive flow in manufacture and in enterprising marketing; in short, the quality of management in each company.

By these intensive methods of improvement, production rose after the introduction of piece-work by twenty-five per cent to thirty per cent, affecting in different degrees the old piece-work and fixed wage systems. The Scottish manufacturers thereby maintained their lead in productivity, which they had achieved before the First World War. Table 11 shows the extent of this

Table 11

Comparison of Net Output per Person between  
Scotland and England and Wales 1924 - 1951.

|      | <u>Scotland</u> | <u>England and Wales</u> |
|------|-----------------|--------------------------|
|      | £               | £                        |
| 1924 | 188             | 159                      |
| 1930 | 238             | 162                      |
| 1935 | 208             | 165                      |
| 1948 | 906             | 562                      |
| 1951 | 952             | 707                      |

(Census of Production for the dates quoted.)

lead from figures in the Census of Production for the years up to the time when separate returns were no longer published.

The later strength and stability of the Scottish industry in generally uncertain times can be partly accounted for by the working out of many manufacturing problems in the period 1912-14. The lace manufacturers were happier once most of the factors of production could be quantitatively measured, while the weavers rejoiced in earnings of 30/- and over from a forty-five and a half hour week, from a radically improved piece-work system, before/

before the outbreak of the First World War.

The price paid for this was the one forecast by the Union spokesmen in the negotiations. This was a deterioration in working relationships and increased envy among the lace operatives. Attempts to overcome the disruptive influence of this approach, through the adoption of the butty system where two men on separate shifts shared the same machine and its piece-work earnings, or of pooling and equally dividing the wages of a number of weavers, never fully resolved the problem. Suspicion always attached itself to the decisions on who would work the newer machines, who would make the better quality cloth, and would a weaver always get a butty as competent as himself to keep production and earnings high. After thirty-seven years on fixed wages, the lace weavers of Newmilns and Galston had to accept these new conditions as a feature in their working lives, and much of the friction engendered at work, which had found an outlet in hostility towards management for its inefficiency, was re-directed among the workers against one another.

CHAPTER 8

THE RADICAL LEGACY

I

The Changing Social Climate.

Once the new lace industry was established and the Irvine Valley began to feel again a degree of prosperity which brought the emigrants home, Newmilns erupted into a violent conflict against the house of Loudoun over a traditional right-of-way through the estate. Tempers subsided after the weavers' triumphed in the Court of Session in 1886, and they recovered some of their pride which had been severely wounded by the loss of their economic freedom in home manufactures.

The defeat of their feudal superior in the courts was symbolic to the handloom weavers of the ultimate achievement in working class emancipation. It proved a famous victory, but it came at the end of an era when the landed proprietors had been dislodged from their place of power by men of industry and commerce. The latter arriving from a new source had a measure of sympathy for the working men in their cause, but in this particular district the weavers had no premonition that a different type of struggle was about to begin. Within ten years, once they had aligned themselves in a new trade combination confined to the lace industry, they felt themselves again oppressed and their freedom threatened.

A small class of entrepreneurs emerged after 1875 and the men who were part of it and their close associates came from a common root and grew up with the same background as the men who earned their living by their labour at the new machines. Yet, very soon the divisive influences of unequally shared wealth began to be felt in the opposing camps in a disintegrating community. Thrust out of Eden it was left to the lace weavers to preserve the aspirations and ideals of the handloom weavers of the previous century in their political and trade activities and in this respect they developed and adapted the major themes of their predecessors.

The new factory owners, erstwhile handloom weavers and agents, carried their independence of mind and self confidence into the business field, bringing rewards, through their application/

application, to the whole community, but leading them also to extremes in commercial jealousy and over-competitiveness. This harmed their affairs and prevented any real degree of co-operation, and obstructed the growth of a strong and enduring trade association. Right from the inception of the lace industry in Ayrshire the employers had an ambivalent attitude towards their employees, and once it appeared that a policy with regard to their workers had been formed, it was clear that a paternalist approach was in conflict with repressive conduct.

Between 1875 and 1880 only five companies were in operation in lace products, still developing from small beginnings. Their owners considered themselves public benefactors in bringing a new and immediately prosperous industry to a dying handloom weaving district, but masters and men were still much alike in almost every respect. They had attended the same parish schools and played together as children and youths. Those who had kept the faith went to the same churches and worshipped together on Sundays. The lace manufacturers were desirous of social esteem, for without it in such small communities life would have lost one of its most gratifying elements. But the demands of a market economy and the influence on respective attitudes of the cash nexus soon had their effect on the working relationships in the district. It took some time for new dispositions to be made on social and economic levels and to these the traditions of the area contributed in the ensuing stormy transition and in the final accommodation.

The democratic feeling and individualism of the people of the district continued unabated. Until 1872 the weavers had avoided the numerous wage reductions and periods of severe unemployment of other cotton weaving districts, and retained that self-regard which is only extinguished by the humiliations of poverty. The lean years of the late 1870s altered their economic standing, but would not admit in disciples of Paine and Cobbett any diminution in their human worth.<sup>(1)</sup> Although the/

(1) Paine's works were still a political influence in the district in the 1870s. Vid. "W.S." 23rd May, 1919.  
"Recollection of Darvel in Olden Times."

the partners in the new companies made a dramatic change into many of the conventional practices of late Victorian employers, the weavers were slow to understand and accept their new position as hands.<sup>(2)</sup>

The circumstances which led to a break in sympathy between the employers and employed in the Irvine Valley was the desire among the men to form a union. Both groups had entered the 1880s Radicals in politics and until lately working colleagues and social equals.<sup>(3)</sup> The first generation of lace manufacturers never quite succeeded in throwing off their radicalism, and as late as 1886 Joseph Hood at the annual reunion of the firm stated his belief that

"the workers in this country are the most important class in it... I do not think they have risen to a proper sense of their power yet. We had very good evidence of it lately in the superior political privileges they got, but I think it is merely a stepping stone to what they will be possessed of yet... Although it is a very good thing that working men are independent and can sell their labour where they like, still I think he is not in the relation he ought to stand to the production of his labour and to what his remuneration might be."<sup>(4)</sup>

These and other sentiments similar in nature continued to be expressed by manufacturers throughout the remainder of the 19th and into the 20th century, but already small portents of an ultimate conflict were appearing in the district. The Nottingham/

- (2) The employers' description of their workmen as hands was used by Keir Hardie in his speeches and writing to evoke a response in working class audiences and readers. Hardie made a play of it in a dispute in Alexander Morton's factory in 1890, and performed a very professional job on the platform and in the press as an agitator who could quickly adapt a promising situation to further his cause of political reform, using an industrial dispute to proselytize to socialism, and socialist theory to educate workmen into an understanding of their economic position under capitalism.
- (3) Among those attending the social meeting of the Newmilns and Greenholm Radical and Home Rule Association in 1889 were Joseph Hood, President (Hood, Morton & Co.), James M. Robertson, Galston (J.M. Robertson & Co.), Alexander Morton, Gowanbank (Alexander Morton & Co.), James Morton, Winnockland (William Morton & Co.), and other manufacturers and weaving agents. Vid. "W.S." 29th March, 1889.
- (4) "W.S." 26th March, 1886.

Nottingham Lacemakers' Society tried to open a branch in the Irvine Valley in 1880,<sup>(5)</sup> but total reliance on the new industry for employment, excepting the distasteful alternative of the coal pits around Galston, made it difficult for local men openly to join a union.

Meetings and recruiting campaigns were arranged by the Nottingham Society, but very little was achieved. A number of small disorganized stoppages by different sections occurred in separate mills over the following two years on the question of wage rates and met with varying degrees of success.<sup>(6)</sup> Letters were written to the local press to stir up interest in a union, but the sacking of the most active members of premature combinations halted progress in this line.<sup>(7)</sup>

A representative of the Lacemakers' Society was sent to live in the district to assist in forming a local independent union,<sup>(8)</sup> but, as long as the numbers of shops remained small and the potential work force large, even the rich and long established Nottingham Society could do nothing. Most of the handloom weavers who had moved away were glad to return, for they still had their families living in the area, many in privately owned cottages, and they were not prepared to jeopardize their chance of work at this stage in the industry's development. It was only at the end of the decade that some progress was made, first by sporadic worker co-operation against employers over questions of hours and wages and then, after aggressive action on the part of the manufacturers, by a properly organized union.

## II

### The Newmilns and District Textile Workers' Union.

The first phase of lace and madras factory building came to an end with the completion in 1887 of Alexander Jamieson & Co's. new premises in Darvel. This proved to be the last until Stevenson, /

(5) Cuthbert, op.cit. p.116.

(6) "W.S." 5th and 26th August, 1882.

(7) Ibid. 11th June, 1881.

(8) Cuthbert, op.cit., p.116.

Stevenson, Young & Anderson opened for business in 1895 in the same town and the second phase began. It was during this time that influence was brought to bear upon the workforce in an attempt to peg wages and to increase hours. The growth of the industry had slackened off after 1887 as internal and foreign competition increased and higher import duties were applied in countries with an indigenous lace industry or in those where governments tried to establish one. This stage also coincided with a period of low demand on a world scale in consumer goods.<sup>(9)</sup>

The economic pressures on the trade were transmitted to the workers and the desire among them strengthened for the collective security of a trade union. Although the tradition of trade unionism in the district had not been unknown nor abhorrent to the manufacturers,<sup>(10)</sup> yet they resented united action by the workers in their factories and believed that frictions arising in the system should be smoothed away by their own arbitrary decisions. But the fresh industrial environment which supplied the employers with new economic and managerial doctrines also provided the operatives with counter-active political theories.

As early as the 1886 election campaign both Keir Hardie and Cunninghame Graham had addressed meetings in Newmilns and Galston. In 1889 Hardie lectured on socialism to a packed audience in Newmilns which contained a large contingent from Darvel,<sup>(11)</sup> and a year later after negotiating the settlement of a strike in the firm of Alexander Morton & Co. he gave a series of talks on the advantages of trade unionism.<sup>(12)</sup>

It was in that year that the Newmilns laceworkers' union was formed, and very soon after it engaged a number of well-known socialist lecturers,<sup>(13)</sup> who had an immediate appeal. They helped to refurbish the old radicalism of the district, giving meaning to the experiences of the laceworkers in the newly established/

(9) Tyson, op.cit. p. 116.

(10) As weavers or weaving agents with looms on their premises they had been members of local weaving associations.

(11) "W.S." 1st March, 1889.

(12) Ibid. 29th August, 1890.

(13) Ibid. 5th February, 1892. The Reverend Alexander Webster of Kilmarnock gave a course of weekly talks, Marxist in content, on the following topics, "Capital and Labour", "Why the Working Classes are Poorer Classes", and "The Way Out of Wage Slavery", all typical of late 19th century socialist propaganda.

established factory system and direction to the Union in the developing struggle with the manufacturers. On the advocacy of prominent officers and members of the Union a local branch of the Scottish Labour Party was formed on 1st July 1892, and it immediately sent letters of congratulation to Cunninghame Graham and Keir Hardie on their election to Parliament.<sup>(14)</sup>

There was an intercommunion of all the working class organizations at this period, but of these, the Union, the Scottish Labour Party, the Co-operative and the mutual aid and friendly societies, the Union was the most vigorous group promoting socialist representation on other elected bodies and all possible methods of furthering working class political aims. It was a founding member of the Ayrshire Trades Council in 1897,<sup>(15)</sup> thereafter having a vote in the choice of Labour sponsored candidates, and while acting in its own capacity it called upon every candidate in elections in the North and the South Ayrshire constituencies to give an account of his party's policies.<sup>(16)</sup>

The events which led to the creation of two local unions sprang from a strike in the carpet section of Alexander Morton & Co's. factory in Darvel. Keir Hardie who played such an important part in starting the unions, was no stranger to the district. Two Galston miners and Walter Forbes of Newmilns supported him in the establishment of the Ayrshire Miners' Federation, and Forbes, a friend of Hardie, was probably instrumental in bringing him to Newmilns in 1889 to give the lecture/

(14) Ibid. 1st July, 1892.

(15) Union Minutes, 23rd December 1896.

(16) The parliamentary boundary was the River Irvine with Darvel wholly in North Ayrshire, Galston in South Ayrshire and Newmilns partly in both.

lecture which caused such a stir in the lace towns. (17)

For whatever reasons of personal friendship or political dedication, Hardie decided to devote a great deal of time and effort in the Irvine Valley when the carpet weavers struck work, and with a number of meetings and speeches he revived the political fervour of the district and raised the passions of the people. (18) These had been subdued since crowds of Newmilns men and youths had attacked and destroyed the last barricades set up on the road through Loudoun estate in 1886.

By his conduct during the strike and in its settlement Hardie created a tremendous impression. He immediately built on this by persuading officials of The Scottish Mill and Factory Workers' Federal Union to visit Newmilns and Darvel to receive entry fees and to help at the birth of the unions. (19) The Darvel union soon failed, because of the special circumstances of having practically all its potential members employed in one factory, but even in Newmilns the two leading officers, the president and secretary, had to be recruited initially from outside the trade. (20) However the Newmilns Union survived its shaky start and Galston workers soon joined it. (21) Later Darvel and other lace producing areas in Ayrshire and Glasgow contributed large numbers to the membership. By 1894/

(17) Walter Forbes, born in Ferniegair, was a life-long friend of Hardie. "He was a leading man among the miners in his early days and along with Bailie Brown and Mr. John Littlejohn of Galston and Mr. Keir Hardie, M.P., took a prominent part in the formation of the Ayrshire Miners' Federation." Vid. "W.S." 26th August, 1910.

(18) The meetings in Newmilns and Darvel were chaired by Walter Forbes.

(19) "W.S." 29th August, 1890. "The Mill and Factory Workers' Union:- Professional Committees will sit as under to receive entrance fees, on Saturday first 30th August - Darvel Institute Classroom from 6p.m. till 8 p.m. Newmilns Templars Hall from 7p.m. till 9p.m."

(20) Walter Forbes, first President of the Union, was employed as the coal department foreman of Newmilns Co-operative Society, while George Young, the first Secretary, was a builder.

(21) At its peak the lace trade in Scotland had over 1,000 weavers and over 2,000 oncost workers with ninety-eight per cent Union membership.

1894 it had 202 weaver members and by 1897 funds amounting to £315. This information it foolishly published in the press, while adding that the Union was federated with the Mill and Factory Workers which had numbers of 6,000 and reserves of £5,000.<sup>(22)</sup> Despite this progress, it remained unrecognized by the factory owners. In the transition from muslin to lace, from domestic to factory manufacture, the independent character of the people survived, but unfortunately for the lace-workers their employers were as determined as themselves, making a head-on clash between them inevitable.

### III

#### Industrial Conflict and Social Alienation.

Between 1873 and 1896 the average money wages of a lace weaver had increased by 10/- to a maximum around 25/- per week. In this same period wholesale prices had fallen forty-five per cent and the cost of living had declined by a third.<sup>(23)</sup> The weavers, who had been in constant employment, had a high average wage between these dates and, when wholesale and retail prices began to rise from 1896, the weavers in Newmilns reacted by putting in for a wage advance of 2/- per week in January 1897. Behind the immediate claim was the demand for the more fundamental right to form a corporate body with officials who would negotiate for them, but the employers had no wish to oblige them.

Ever since the establishment of the Union in September 1890 the men had had to accept many impositions without any reference having been made to their views. From the contemporary industrial scene the employers borrowed the idea of "free labour," an unsophisticated approach, then as now, that workmen had the right to sell their labour without interference from any source in whichever market they chose. Meanwhile, the employers maintained their managerial prerogative and applied it in an increasingly autocratic manner.

The chairman of the Newmilns Employers' Association stated its/

(22) "W.S." 2nd April, 1897.

(23) Cole and Postgate, op.cit., pp.428-429.

its aims quite clearly when he reprimanded Alexander Morton for intervening to arrange a settlement during the ensuing lock-out.

"As employers, we claim the right to conduct and control our concerns as we think proper, and allow the Textile Workers' Union to do the same so far as their Union is concerned. Very probably each employer will be prepared to treat with his own men in a direct manner, but not through any outside source."<sup>(24)</sup>

Mounting pressure by the Union to have its wage claim considered, increased friction in the mills as members tried to force recognition of their Union and its demands upon the employers. This culminated in the peremptory suspension of seventeen men on Saturday 26th June in three factories.<sup>(25)</sup> The Union called for the re-instatement of five men paid off by R.Muir & Son, and for a reply to be given to their petition for an advance in wages. These requests were ignored. When none of the weavers turned out for work in that firm on Monday 28th June, a lock-out of workers began immediately in all the Newmilns and Galston lace factories.

From the beginning of 1897 when the first attempt was made to improve wage rates, it was evident that the employers intended to press the issue with the Union into open conflict and if possible to exhaust the Union funds. After rejecting Alexander Morton's offer to mediate on the 22nd July, the manufacturers moved into the offensive and approached and obtained the services of Graeme Hunter, a notorious strike breaker. He appeared in the town on the 10th August and in accordance with normal procedure the management of eight Newmilns lace factories was transferred to him, retained at a fee of £2,000 and expenses.<sup>(26)</sup>

On the following day the lock-out notices were withdrawn and the men were invited to return to work on individual application/

(24) "W.S." 15th August, 1897.

(25) Ibid. 2nd July 1897.

(26) Vid. Satirical Play "The Crisis," Act III, p.3.

application at the office of each firm. The dispute which for weeks had been conducted quietly with pickets at each factory to persuade the few still working to come out suddenly changed its mood. During the first week in August "tumultuous escorts" were given to those who continued to work, both to and from the factories. Two dozen policemen were drafted into the town, and on Thursday, 12th of August, fourteen people, most of whom were arrested in the night, were tried at Kilmarnock Sheriff Court charged with intimidation under the Conspiracy and Protection of Property Act.<sup>(27)</sup>

A number of scurrilous pamphlets and cartoons were distributed by both sides giving venomous nicknames to the manufacturers and the Union leaders, illustrating the dark or absurd side of their character.<sup>(28)</sup> (Print 12 p.219) But verbal indiscretions and defamatory publications were a mere prelude to the action to come. On the 13th August, the chairman of the Manufacturers' Association wrote to the editor of the local newspaper changing ground on the employers' interpretation of events leading to the lock-out in R.Muir & Son's factory.

He claimed that workers had been paid off because it was the seasonal slack period, and hinted that if the Union withdrew their original letter to the firm, the content of which they found objectionable, the Association might be prepared to negotiate.<sup>(29)</sup> On the advice of the Federation a retraction was delivered, but the manufacturers were already committed to the scheme with the strike breaker, who had contracted to run their/

(27) "W.S." 15th August, 1897.

(28) Published by the Union: "The Crisis," Act I  
"The Crisis," Acts II and III  
Satirical Dramas.

Published by the Manufacturers' Association:  
"The New Democracy - A Burlesque  
from Real Life by the Executive of the Newmilns Idlers'  
Union."  
"Newmilns, Independent of Labour Party Tactics." (A  
Cartoon).

(29) "W.S." 13th August, 1897. "It was unanimously agreed that until the aggressive letter referred to is withdrawn the employers cannot move on the matter."

their factories for a period of twelve months.<sup>(30)</sup> Once the letter was withdrawn the employers showed no sign of willingness to meet the men. They merely stated that there was then no impediment to their return to work, and thus brought the situation back to the time before the 26th June with none of the propositions considered.

The employers felt confident of breaking the Union, which had gone about this, its first, official claim in an uncertain and disorganized fashion. Poor advice from the Mill and Factory Workers' Federation had guided the Newmilns Union into a poor tactical position. The Federation had offered support to those factories where members had a two-thirds majority in favour of a strike. When only three out of eight factories gave the required support,<sup>(31)</sup> the Union vacillated, and the employers reacted vigorously with their suspensions and lock-out.

By the 26th August, when Graeme Hunter was ready with the next step of his bid to break the Union, he acquired land on which he could erect wooden buildings to house imported labour. The first group arrived on September 15th. They were recruited from the lace districts of Nottinghamshire and Derbyshire, but some were also introduced from Scottish weaving centres in Glasgow, Stonehouse and Hawick. It later emerged that those who were not completely unscrupulous had been induced to accept on the promise of high wages and a peaceful sojourn. Once they had arrived, they were detained by low payments and the threat of imprisonment for breach of contract.<sup>(32)</sup>

When the lock-out entered its eleventh week, feeling was running/

(30) "W.S." 17th December, 1897. Hunter's contract with his imported workers is quoted in the "W.S." 17th November, 1897. "I.... .., undertake to proceed to the strike in Newmilns, or to any place you may require me in the United Kingdom for a period of twelve months, and as a competent lace weaver work at the trade as such in a thoroughly satisfactory manner, the amount of remuneration to be at the rate of .... for forty-eight hours work. I agree that my personal conduct and behaviour shall give you entire satisfaction. During intimidation, you to provide food and lodging, and in all cases of removal to advance fares."

(31) Union Minutes, 11th June, 1897. The firms were J. & J. Wilson, Wm. Morton & Co., and R. Muir & Son.

(32) "W.S." 19th November, 1897. Two men sent home by the Newmilns Union were prosecuted for breach of engagement and fined £20 or three months imprisonment.

running high. The President of the Union counselled the men to keep within the law and to avoid violence. He advised the people not to collect at the railway station in crowds, but to allow the committee to meet the incoming parties to explain the position and to persuade them to return home with expenses paid. Six Englishmen had already arrived, coming off the train down the line at Mauchline and being driven in by the back road. Twenty-one others accompanied by Hunter came in by train from Glasgow. Nineteen were Englishmen and two were from Glasgow. The Glaswegians returned home.

As soon as the blacklegs were dispersed to the factories the boy shuttlers stopped work. But the first round had gone to the strike breaker. From then on the town was in a state of open warfare in which iron bars, knives and revolvers were brandished by blacklegs to defend themselves.<sup>(33)</sup> After many skirmishes it was the local men who suffered the severest sentences for intimidation. By late September conditions had worsened and tempers completely lost. For every man who returned home, three more came in. Because of the danger, carriages were unobtainable at Mauchline station and later contingents had to travel on to Kilmarnock, for a scout posted by the Union at Mauchline had time to cycle to Newmilns to warn the people of their approach.

Hunter hired conveyances at Kilmarnock and drove his new arrivals to Newmilns, running the gauntlet on approaching Galston through mobs of miners and pressing on through fusillades of stones on the road to Newmilns. On one occasion "Graeme Hunter received some injury from the missiles thrown."<sup>(34)</sup> On another, "the men who were intimidated were being brought up from Kilmarnock in a char-a-banc, which Mr. Graeme Hunter, labour agent, was driving. When he came to the crowd, he whipped up his horses and drove them through at a gallop."<sup>(35)</sup>

The situation became so desperate that Keir Hardie was summoned to help calm the men. Galston miners had offered to provide explosives to blow up the huts which accommodated the blacklegs/

(33) Ibid. 8th October, 1897. Charges made against English lace-workers for assault and carrying loaded revolvers.

(34) Ibid. 24th September, 1897.

(35) Ibid. 1st October, 1897.

blacklegs in a field to the west of the town. Hardie and Councillor Johnston of Aberdeen United Trades Council made a further attempt to negotiate a settlement, but the employers would make no concession. On the 20th September the employers had warned the president of the Union that unless the men were "prepared to give in writing an acknowledgement that the recognition of the Union is to be dropped" no meeting could take place.<sup>(36)</sup>

The Union finally gave this assurance, but still no progress was made until at the end of October three men eventually broke away, a unionist and two non-unionists, and resumed work. On the 8th November one of the lace firms took back its workers on the old terms, but on the whole both sides remained firm until Councillor Johnston, who was also the president of the Federation, wrote to the Board of Trade asking it to intervene under the terms of the new Conciliation Act of 1896.<sup>(37)</sup>

Employees and employers accepted Mr.G.R.Askwith as conciliator and one of the earliest settlement in Scotland under the new act was reached on the 13th November, 1897, after a dispute lasting into its twenty-first week. The employers proposals were those which formed the basis of the agreement, the four main clauses of which were: (i) that the employers would receive back their old employees on individual application at the same wages; (ii) that for the settling of future disputes they would provide facilities for a deputation of three persons already employed in their works; (iii) that men at present working would not be molested; and (iv) that a revision of wages would be considered within six months. The officers of the Union were not allowed to act for the men, and an employee/

(36) Ibid. 24th September, 1897.

(37) Ibid. 19th November, 1897. The Federation, which was pledged to support the Union had seen its funds depleted by £1,500 in five months. The Nottingham Lace-makers' Society sent in all a gift of £395 and thousands more were raised from individual contributions, by funds raised by concert parties and sympathetic unions. Galston miners, who had been helped by the weavers during their prolonged strike in 1894, continued throughout to hand over generous donations.

employee of each firm signed the agreement as a representative of his workmates, later to be subscribed individually by every worker.<sup>(38)</sup>

When the lock-out ended there were 186 blacklegs living in the huts with others lodging in the town, all of whom had seven to twelve months of their contract to run. Although after a week, 147 men and boys had been reinstated, by 11th February 1898 forty-one employees had still not been re-employed. Men who had stopped work in June 1897, when the system was one of three shifts of eight hours, returned to two shifts of twelve hours. The agreement had also stipulated that when vacancies occurred they were to be filled by former employees, but men from Kilmarnock, Darvel and Stonehouse were given precedence.<sup>(39)</sup> In 1900, after three years of continually rising prices, the lace-workers' wages remained constant and there still had been no review. What appeared to be the final blow to the Union was delivered during May and June 1898, when notices were posted up in all the Newmilns factories declaring that in future no Union men would be employed,<sup>(40)</sup> and the men had each to sign a document that they would not join.<sup>(41)</sup>

The men seemed to gain nothing by pressing for Union recognition./

(38) Ibid. 19th November, 1897.

(39) Ibid. 11th February, 1898. Vid Letters between G.R. Askwith and John Shields, Chairman of the Manufacturers' Association.

(40) Ibid. 10th June, 1898.

#### NOTICE

"To our employees who are presently members of the Newmilns Textile Workers' Union. You are aware that we have completed our six months agreement with the Board of Trade, and as we cannot again allow any third parties to interfere with us in our business in any form, we have decided that each employee who is a member of the above Union must leave our employment today, but in the event of anyone being prepared to sever his connection therewith, we shall be pleased to receive his individual application, with a view to re-instatement as non-union men."

(41) Ibid. 10th June, 1898.

#### AGREEMENT

"I hereby acknowledge having been a member of Newmilns Textile Workers' Union, but now declare truthfully that I am no longer, and I shall not again form any such connection as long as I remain in your employment."

recognition. There had been a poor record of successful strikes in the country during the year, and although the new Conciliation Act promised government intervention and the opportunity for a constructive approach to industrial problems it had only been one year on the statute book. It required the Commissioner of Labour at the Board of Trade to keep himself informed of labour relations in Britain in order to prevent, or if necessary settle, trade disputes and to help "in the formation and maintenance of joint voluntary machinery in industry." The officer appointed to the Irvine Valley, G.R. Askwith, tried hard to fulfil the task allotted to him and was to accomplish much at a later date in Ayrshire and Nottingham,<sup>(42)</sup> but the consequences of the lock-out of 1897 made the laceworkers suspicious of government conciliation and arbitration and subsequently were always loath to accept it.

The dogmatic mood of the employers in mid-November prevented Askwith from obtaining any real concessions from them and even the agreed clauses were not observed. The men were at the end of the road while the management had still some reserves of will and resources,<sup>(43)</sup> but the manufacturers had driven themselves into such an inflexible position that any palliative in the final settlement would have proved the bitterest pill they had to swallow.<sup>(44)</sup>

Graeme Hunter, for once, expressed nothing less than the truth, when he described Askwith's role. "He came to act simply as a feather bed on which the Union might fall, and he came at their instance, not at mine. After pointing out to him his actual position, a position which he accepted, I welcomed the effort to restore peace to the Valley."<sup>(45)</sup> When Hunter/

(42) Cuthbert, op.cit., p.61.

(43) "W.S." 29th October, 1897. At one point, 10,000 pairs of curtains were being made elsewhere for Newmilns firms.

(44) The lace employers' actions received unsympathetic treatment in the press, the reporters for the "Kilmarnock Standard" and the "Ardrossan and Saltcoats Herald" being in consequence numbered among the Union leaders in the scurrilous publications issued by the manufacturers.

(45) "W.S." 17th December, 1897.

Hunter left to batten on other credulous employers, currently he was engaged in seventeen disputes,<sup>(46)</sup> they could not hide from their old employees returning to their places the costly damage done to the machinery by blackleg labour, some of whom had never seen a lace loom and all of whom had come to realise that their stay would be a temporary one. Although the lock-out finished with the men signing "the document," this action in itself was the real foundation of the Union, for they became even more dedicated though at first clandestine members. The Union at the termination of the dispute acquired the services, from its own ranks, of a highly literate and industrious organizer, as secretary and collector,<sup>(47)</sup> and retribution fell upon the blacklegs, most of whom soon left the district.

Fines were inflicted on local men who had broken ranks and on the few imported workers who remained and had done nothing too discreditable. By 1907 the Scottish lace industry was virtually a closed shop and the Union seldom thereafter made any tactical mistakes after the hard lessons of 1897.<sup>(48)</sup> The employers won a hollow victory. In purely monetary terms they gained some advantage, but they lost face in the community. At the next local election the Provost, the Senior and Junior Balies of Newmilns, all manufacturers, did not stand for re-election. The dispute proved to be the end of an era in the social life of the town and a cathartic experience in the minds of the people.

The employers had made a mistake in judgment and, characteristically of both manufacturers and men in the district, found it difficult to retract or to admit to being/

(46) Ibid. 11th November, 1897.

(47) John Young, like the first President and Secretary, was safe from dismissal from work for union activities. He was employed as an agent by the Co-operative Insurance Society.

(48) Cuthbert, op.cit., p.117.

being wrong. They resented what they regarded as outside interference in their affairs and always claimed the right to treat with their own workmen. They suspected that the Lacemakers' Society agent sent into the district in the 1880s, to recruit members and then to encourage the establishment of an independent union, was there with the support of their Nottingham competitors,<sup>(49)</sup> and they considered Keir Hardie's activities and the help given by the Mill and Factory Workers' Federation equally offensive.

The events of 1897 destroyed any generosity of feeling towards their workmen, which had been evident at the beginning of the new industry in the actions of some who gave space in their sheds to a number of handloom weavers. However this concession latterly re-appeared, after a bitter and guilty interim which lasted until the recognition of the Union in 1914. It was the act of a latter-day paternalism towards old and loyal workers who were allowed to continue in employment as long as they felt disposed, and long after they could be considered as profitable economic units.

National differences and feelings had partly accounted for the lack of success of the Lacemakers' Society in extending their influence in the 1880s, and, although the largest gift of money to the Union funds had come from Nottingham, the lock-out had not improved relations for the bulk of the blacklegs had also come from there. At the end of the year, when the struggle was reviewed, the workmen thought the action of the employers a moral outrage, but like the employers they still regarded themselves separate and Scots, for they declared that "never before had huts been erected to accommodate foreign labour in the face of a strike in this country."<sup>(50)</sup>

#### IV.

##### Union Organization and Affiliations.

The lace Union emerged from the masters' lock-out firmly/

(49) Nottingham manufacturers had earlier assisted the Lacemakers' Society in its attempt to maintain prices. Ibid. p.45.

(50) "W.S." 24th December, 1897.

firmly established, and from the debris of defeat built a strong and lasting organization with a better sense of industrial tactics and a structure suited to deal with future problems from disputes on the shop floor to questions of general policy. In the immediate aftermath of the lock-out, the officers of the Union were not allowed to present a case for their members to the employers and so negotiations, until full recognition was given in 1914, were restricted to shop level through an elected responsible member. He also acted as their delegate on the Union's executive council, but after 1897 and the introduction of the document these responsible members led a precarious existence and some were dismissed and a few blacklisted. However, the workers elected to these positions were normally the strongest-willed from a body of men traditionally resolute in their beliefs.

At first, although all negotiations were conducted at shop level, they were always under the direction of the executive council and by this method the Union developed a strong central authority over its affairs and the activities of its members. The executive disciplined strictly all who attempted individual or collective action in a dispute without the sanction of the council or the decision of a general meeting. Like the employers to their workers, the executive had a paternalist approach to its members and came to have an unchallengeable power over their lives in the industry.<sup>(51)</sup> On a number of occasions hasty decisions by angry members in various shops were condemned and the men reprimanded. A member was in danger of loss of benefit unless his unofficial action were taken "through his zeal in upholding the trade's rate of wages," or he became "a sacrifice through any action he may have taken in the affairs of the Union."<sup>(52)</sup>

To avoid intimidation by the employers or mealy-mouthed/

(51) Union activists occupied corresponding positions in other working class organizations. An example of the Union's ramifications is to be found in the barring of a blackleg from membership of Newmilns Co-operative Society. "W.S." 18th February, 1898.

(52) Rulebook of the Scottish Lace and Textile Workers' Union, Rule 14.

mouthed representation of their views a delegation was made up from the shop committee, which comprised the responsible member and two other elected men. If it occurred that the Union was relatively weak in any of the shops, and few would volunteer for these posts or refused to allow themselves to be nominated, the executive council threatened all the members in the shop with expulsion and appointed a responsible member without his consent,<sup>(53)</sup> thus thrusting responsibility and service as well as elective rights on its membership. The circumscribed area of the Union's activities and its small membership determined its main characteristics, encouraging a tightly-knit organization capable of resisting the influences which weakened other unions from without and from within. Having had a type of shop steward system from the beginning, under the tight rein of the executive council, the officers were always close to every industrial situation in its details and in its feeling and were able to prevent the development of unofficial action.

Autonomy was granted to various branches in the lace section when growth warranted it, but their decisions were limited, falling short of strike action and the disbursement of funds. Even in trade disputes a formula was applied which ensured a united body after full consideration of a question. A two-thirds majority by ballot for striking was necessary for a strike resolution to be carried and similarly another majority of two-thirds was required for a return to work.<sup>(54)</sup> Stoppages in the lace trade were therefore rare but on average of long duration.

The aristocrats of the trade were the weavers and the Union, until the lock-out of 1897, was their preserve. The lock-out lasted twenty-one weeks and without cloth production by the weavers three times as many oncost workers were redundant and ineligible for trade benefit. .  
Entertainments/

(53) Union Minutes, 16th October, 1926.

(54) Rulebook, Rule 14.

Entertainments were given throughout the west of Scotland to raise funds for these workers, but it was apparent that the oncost operatives should have been organized as a section of the Union and not as part of a separate union.<sup>(55)</sup> It was realized that greater solidarity would be obtained and sympathy and support maintained if ranks were opened to receive all types of textile operatives in the district and so membership was offered to jacquard readers and punchers, spoolers and shuttlers, women workers and engine-men, and, in short, to all those employed in the lace trade. From the turn of the century and within a decade of its formation the Union transformed itself from a craft basis to an early industrial type of union.<sup>(56)</sup>

Once the exclusive membership of the Union had been broken, its members found it difficult to avoid opening its doors to all-comers. On occasion up until 1900 the executive council had sent John Young, the Union's exemplary secretary and organizer, to other areas which appealed for help. In 1897 he was appointed for a month to assist the woollen workers of Galashiels and Selkirk, but the executive had no desire to adopt new societies there.<sup>(57)</sup> Even after Young had organized the lace weavers in the Glasgow sheds into a union of their own in 1900, they were reluctant to accept them as a branch. They were advised to join the Scottish Textile Federation, the Newmilns delegates at their inauguration being given instructions "to guide the meeting in that direction"<sup>(58)</sup> Another seven years passed before it became a branch of the Newmilns Union.

The old management committee of the Union had been formed/

(55) "W.S." 2nd October, 1891. The Newmilns Union had encouraged recruiting officers of the London Female Workers' Union to campaign in the district.

(56) The attitude of the Union in this respect was described by a resolution accepted by the S.T.U.C. in 1924, "that this Congress of workers' delegates view with alarm the continual existence of Craft and Sectional Unions, such antiquated methods of organization being useless to combat the united forces of the employers' class, and calls upon the General Council to take immediate steps to remedy this growing evil." Union Minutes, 14th February, 1924.

(57) Ibid. 16th February, 1897.

(58) Ibid. 18th April, 1900.

formed by the responsible members from each shop in Newmilns and Galston with one other man to represent Darvel members. Later a responsible member took his place for each shop in Darvel too, but as the industry grew and factories increased in number a new system was developed by Young to reduce the large unwieldy committee to a smaller executive council. By 1907, when the Glasgow lace workers' union was affiliated, branches had already been created in Darvel, Galston, Kilmarnock and Stewarton with delegates on the council based on the size of membership, but for the first twenty years of its existence the officers of the Union were taken from the Newmilns membership, reflecting its place of origin and strength in that town.

The impulse among textile workers at the end of the 19th century was towards small, independent unions, necessarily restricted by area and type, because of the difficulty of standardising processes and wages, based on the spinning, knitting, weaving, lacemaking or finishing of various fibres. But as a safeguard, to obtain some form of financial security during industrial disputes in the cotton, flax, jute and wool trades, each small union sought affiliation to a federation of allied trades just as the Newmilns Union had earlier linked up with the Scottish Mill and Factory Workers' Federation. (59)

Many small groups of textile workers could not survive long enough as a separate union to apply for membership of a federation, for in this period most combinations of workers were faced with the hostility and obstruction of their employers. (60) The powers of endurance/

(59) The principal function of the Federal Union had been replaced by the General Federation of Trade Unions, founded in 1899, with its assurance of financial aid in a strike and of other mutual aid services for member unions. The Newmilns Union joined the G.F.T.U. in 1907, and disaffiliated from the Mill and Factory Workers' Federal Union in 1914.

(60) Employers were favoured by the courts in the Taff Vale and Osborne Judgments.

endurance of the Newmilns Union, widely publicised in their struggle in 1897, attracted attention throughout the country and very soon calls for assistance came in from workers in other parts of Ayrshire, from Renfrewshire and Lanarkshire. By 1918 carpet weavers, blanket makers, madras weavers and bleachfield workers in the Irvine Valley were accepted into the Union and outside the immediate locality cotton spinners, weavers and finishers, hosiery workers, flax dressers, hacklers and roughers in an area from Irvine to Lanark and from Mauchline to Johnstone had appealed for assistance in organizing the operatives in their factories and in campaigns to improve or maintain their wages and working conditions.<sup>(61)</sup>

Round the nucleus of the Newmilns Union was formed a larger, more widespread, textile workers' union.<sup>(62)</sup> Although always willing to help other operatives, the laceworkers were often reluctant to accept them as a branch, for they saw no blessing in size for its own sake. Their own Union, always dominated by the lace weavers, could anticipate the disadvantages of incorporating low paid workers, whose accumulated contributions could disappear overnight in a dispute. Many of the small groups/

(61) The following groups of workers were admitted:  
Darvel Carpet Workers - 1906, Johnstone Hacklers and Roughers - 1907, Irvine Valley Women Lace Workers - 1909, Kilmarnock Women Tweed Workers - 1911, Kilbirnie Flax Dressers - 1915, Stewarton Hosiery Workers, Kilmaurs Hosiery Workers - 1915, Galston Hosiery Workers, Galston Blanket Makers - 1916, Irvine Hosiery Workers, Lanark Hosiery Workers, Troon Hosiery Workers, Irvine Valley Madras Workers - 1917, Catrine Cotton Operatives - 1918, Mauchline Hosiery Workers - 1920.

(62) Known as the Scottish Lace and Textile Workers' Union since 1916.

groups of hosiery and flax workers who attached themselves were a strain on the financial and physical resources of the Union. Generally employed in single, isolated factories they frequently collapsed through the intimidation or dismissal of active members or branch officials, and with women constituting the majority of the members in outlying towns and villages, which lacked the continuing tradition and radical politics of the lace towns, their survival as a body was even more difficult.<sup>(63)</sup>

The laceworkers would have declined to admit other types of workers from outwith their district, if a way could have been found to circumvent the demands of their own socialist beliefs and fraternal class consciousness which was daily becoming further entrenched. But they had been themselves recently on weak ground, requiring the help of outsiders and could understand the feelings of workers in an exposed position denied the collective security and financial benefits of a union.

While the Scottish organization grew, the International Federation of Lace Trade Unions, which the laceworkers of the Irvine Valley joined in 1901 as a founding member, faltered and eventually collapsed in 1912. Created to increase understanding and mutual support among workers in a single trade unrestricted by frontiers, it quickly embraced most of the lace workers of Scotland, France and England. But after eleven successful years and on the point of involving the operatives in Germany and the U.S.A., it was destroyed in a fit of pique by the Nottingham Society which had been chiefly instrumental in its formation.<sup>(64)</sup>

Like the international socialist campaign at the same/

- (63) The Newmilns Union later accepted the withering away of the outlying branches, or, after a nominal protest, poaching by other organizations, principally the General Workers Union.
- (64) The Nottingham Society lost an action in the High Court against the International Federation in 1910 and incurred a loss of £1,000 in costs for both parties. The English union had found itself without a representative among the officers of the International through a fault in the constitution. The Scots hoped to solve the problem by arbitration, but, once the Federation was arraigned, it had to defend itself in court or lose the case by default.

same period, designed to outlaw war, the International Federation was inspired by working class idealism, but it still had not developed efficient methods for translating feelings into action and the problems of poor communication caused the disintegration of the movement. In Britain alone lack of confidence in each other's motives and contrasting fortunes further separated the Scottish and English laceworkers. While the fragmentation of the industry in England had been accompanied by a weakening in the Nottingham Society, in Scotland the Union achieved a high degree of centralisation and a secure financial and structural position. (65)

The attitudes of both unions diverged at many points, including those touching political beliefs. After an impetuous and brief flirtation with the National Labour Representation Committee in 1904, the Nottingham Lace-makers' Society rejected for the future any close political connection. The twisthands there remained, well into the 20th century, similar in type to late Victorian Liberals or Lib-Labs, while in the Irvine Valley the lace weavers considered their Union not only an essential part of their working lives, but also a means for obtaining fundamental changes in the social and economic structure of society. It had a large share in educating its members in political theory and actively promoted political ends through the agency of the Independent Labour Party.

A discussion arose within the Union, after a conference in Edinburgh in 1900, on independent Labour representation in Parliament, but it was not until 1903 that the Secretary made enquiries into the details of affiliation to the N.L.R.C. It did not join until 1904 after its members had received assurances that the movement was/

(65) The Scottish union gave the Nottingham Society a loan of £2,000 in 1920 with a further £3,800 in 1922. The money was required by the Society after a disastrous strike in the plain net section in 1920 at the beginning of a depression.

was in no way influenced by the two old political parties.<sup>(66)</sup>

Around this time the political attitudes of the Scottish laceworkers had crystallized. At a general meeting of the Union in January 1902, after a second conference in Glasgow on working class representation in government, a member of the executive read a lesson in socialism to the members, drawing attention "to the apathy and inactivity which exists locally with regard to Parish Councils, School Boards and Town Councils, and adverted to the hostility with which Co-operators, Trade Unionists and the general body of workers were being faced by the private trading, employing and Capitalist class, and these public servants who work in their interests locally and nationally."<sup>(67)</sup> From then onwards union members, local I.L.P., and Co-operative candidates won seats on those bodies and only the oldest among the lace workers remained loyal to the Liberals.

The first Labour nominee in Ayrshire was Robert Smillie in the Southern constituency which included Galston and part of Newmilns. He withdrew in 1904, but in the following year James Brown, a miner, was adopted as the Labour candidate for North Ayrshire which took in Newmilns and Darvel. His policy appealed to the weavers. He pledged himself to support the reversal of the Taff Vale Decision, to press for the eight hour working day, school meals for hungry children, old age pensions as a right, the abolition of mining royalties and the nationalisation of land.<sup>(68)</sup>

In the election which brought a Liberal landslide, the Labour intervention allowed the Tory candidate in, but ensured a strong Labour organization for the future.<sup>(69)</sup>  
Voting/

(66) Union Minutes, 15th August, 1903 and 8th October, 1904.

(67) Ibid. 18th January, 1902.

(68) "W.S." 19th January, 1906.

(69) Union Minutes, 23rd December, 1905. The Union committed itself to the first Labour candidate to stand in the constituency. Motion: "That this Union do everything in its power both morally and financially to further the candidature of Mr. Brown." Amendment: "That we take no further action ... but leave every member to vote according to his conscience. For the amendment four votes, for the motion eighteen."

Voting figures in the ballot were:

|                  |             |             |
|------------------|-------------|-------------|
| Thomas Cochrane: | Unionist .. | 5603        |
| A.M.Anderson:    | Liberal ..  | 4587        |
| James Brown:     | Labour ..   | <u>2683</u> |
| Majority:        |             | 1016        |

Following this result the Newmilns Union proposed, at a meeting of the Trades Council that a conference should be held to consider setting up a Labour Representation Committee for North Ayrshire. (70)

The lace workers in the three towns had reached a logical end, virtually pre-determined by their history in the trade and their political education over two and a half centuries. With the success of their Union in the dispute in 1914 over wages and conditions, they felt they were at last coming into their full inheritance, which would grant them economic security, individual freedom and the right of voluntary co-operation with others by their own choice.

(70) "W.S. 27th July 1906.

I

Summary

The formative influences involved in the economic and social history of the Irvine Valley were the stable agricultural background, the survival of weaving in the three communities, the retention of the district's population through the success of both these activities and therefore the containment of its vitality which found expression, not only in economic outlets, but also in a continuing radical tradition. Weaving was able to absorb the natural increase in population after the end of the 18th century and even the rural population did not seriously decline until the First World War, when a decrease also occurred in the numbers in the three towns. (Vid. Table 12, page 158.)

The population grew steadily over the seventy years between 1801 and 1871, and escaping sudden large scale immigration to the district the local economy remained buoyant and social life stable.<sup>(1)</sup> There was a healthy development of social institutions throughout the 19th century, although political activity was in continuous ferment.

The experience of Scottish handloom weavers throughout the century was not uniformly one of constant irreversible decline. Close and separate study of each of the handloom weaving districts reveals violent fluctuations in trade, particularly among plain weavers as power looms were introduced during the period 1812 to 1840. Even so, certain types of production remained consistently remunerative and the worst affected were frequently those who were vulnerable to influences arising from factors not wholly connected with the trade cycle. Among these were the/

(1) Taking religious persuasion as evidence of migration into what had been an exclusively presbyterian district, in 1841 there were only twelve Baptist, three Roman Catholic and two Episcopalian families in Loudoun parish. N.S.A., Vol. 5, p.852.

the many weavers who were immigrants without resources in land or property and who had been already degraded by years of penury and exploitation in their native districts. Most of these started up at their trade in the west of Scotland already in debt. They owed money for loom rent, pirn winding, accessories and ancillary services, house rent and candles, and during this time they were continually in thrall to the agents dealing in plain cotton goods. Often they had no alternative employment. This was especially so in cities where they could neither take work at the harvest, nor eke out an existence for their families by the cultivation of gardens.<sup>(2)</sup>

TABLE 12

Parish and Burgh Populations 1801-1921

(in hundreds)

|      | <u>Loudoun<br/>Parish</u> | <u>Galston<br/>Parish</u> | <u>Newmilns</u> | <u>Darvel</u> | <u>Galston</u> |
|------|---------------------------|---------------------------|-----------------|---------------|----------------|
| 1801 | 25                        | 21                        | 10*             | 4*            | 6*             |
| 1811 | 32                        | 30                        | -               | -             | -              |
| 1821 | 37                        | 34                        | -               | -             | -              |
| 1831 | 40                        | 37                        | -               | -             | -              |
| 1841 | 44                        | 43                        | -               | -             | -              |
| 1851 | 47                        | 44                        | 22              | 15*           | 25             |
| 1861 | 48                        | 53                        | 23              | 17*           | 32             |
| 1871 | 55                        | 63                        | 30              | 18*           | 47             |
| 1881 | 52                        | 60                        | 29              | 17            | 41             |
| 1891 | 64                        | 64                        | 37              | 20            | 43             |
| 1901 | 82                        | 70                        | 45              | 31            | 49             |
| 1911 | 90                        | 72                        | 48              | 36            | 53             |
| 1921 | 80                        | 68                        | 42              | 33            | 50             |

\* estimated.

(Census Reports)

The stringency with which parochial poor relief was administered in the towns, together with the lengthy period of settlement required before a candidate was entitled to make a claim, added to the misery of destitute immigrant weaving families. But in many rural communities, as in the Irvine Valley, the poor law, although under/

- (2) Large numbers were required on each farm during harvest when work was done by hand. "This day Mr. Frame, Waterside began harvest. There were twenty-eight shearers and five bandsters in the boon." Diary of John Wallace, 4th December, 1816.

under pressure, continued to function imperfectly until the passing of the new Scottish Poor Law in 1845.

On the one hand, while the economic philosophy of laissez-faire helped to open up new markets, on the other, as it affected government policies, it broke the power of long established institutions such as the incorporated trades and trade unions, and weakened customary and legal safeguards which formerly protected the artisans. Although the national Weaving Association was destroyed in 1812, the handloom weavers, in many districts, contrived alternative means of protection.<sup>(3)</sup> Not as effective as the incorporated trades or the unions, the new measures yet prevented the dissolution of the weavers as a body, and not the least consideration in exacting fair play was the social pressure which could be brought to bear on agents in small communities through their fear of infamy.<sup>(4)</sup>

A loss of livelihood was not the immediate and common fate of the handloom weavers in the face of competition from the power loom. They could be compared more correctly with shipwrights during the gradual replacement of vessels of wood by iron and steel which reduced their numbers and status against the engineer and the plater. The transient career of many handloom weavers between 1816 and 1840 resulted from the recruitment of unskilled and unemployed labour on the simplest types of cotton and linen goods, and the greatest superfluity of weavers arose when the demand increased for printed cloths, dictated by fashion in the 1820s and 1830s, which were quickly becoming the sole preserve of the power loom. This is a study of the origins of the lace industry in Ayrshire, but elsewhere in Scotland it may be found that where handloom weaving in linen and silk survived to near the end of the century most of the features which led/

(3) Vid. above Chapter 4 pp. 62-63 and 74-75.

(4) Robert Gilchrist "The Life Story of Hugh Morton, Newmilns." pp. 129, 131.

led to its continued existence in the Irvine Valley were reflected, without the additional step into machine-lace production which occurred there, because of a unique combination of local factors.

One consideration is often overlooked when a case is made that the power loom, as a technical advance, reduced piece rates. It is true only up to a point. It promptly cut the rates of plain goods, but in its relatively primitive state, even with thirty-two leaves, a drop box and automatic stopping incorporated in its working capacity, it lagged behind the handloom in advanced weaving techniques until in the 1880s the jacquard operated, colour changing, madras loom came into use. While the handloom remained ahead in lappet, swivel and jacquard work the weavers rates remained unaffected by the power loom, except where cheap printed alternatives were acceptable on the market.

Thus in many districts the number of handlooms actually increased. This was certainly the case in the Irvine Valley. Table 13 shows a decline in numbers after 1838 which corresponded with the trend throughout the country, but in a unique fashion, based on specialization in the handloom leno trade, the numbers in Newmilns and Darvel rose to the highest point in 1872.<sup>(5)</sup>

TABLE 13

The Number of Handlooms in the Irvine Valley

| <u>Date</u> | <u>Newmilns</u> | <u>Darvel</u> | <u>Galston</u> |
|-------------|-----------------|---------------|----------------|
| 1792        | 266             | 58            | 55             |
| 1828        |                 | 880           | 460            |
| 1838        |                 | 1130          | 423            |
| 1842        | 550             | 328           |                |
| 1872        | 952             | 633           |                |

(Sources: O.S.A., N.S.A., Handloom Weavers' Reports, and "W.S.")

On the social and political side the weavers maintained the energy and enthusiasm of earlier times. In the/

- (5) No completely accurate figure can be quoted on the number of handlooms in operation in Galston after 1838, but over 600 were still working on muslin goods in the late 1850s and early 1860s, (Vid. "W.S." 31st August, 1894). The number of weavers employed in that town was probably at its maximum in the years before the cotton scarcity during the American Civil War, and fell away afterwards.

the Irvine Valley, as in the rest of Scotland, the presbyterian ministry was the first radical party and Calvinism gave the country an authoritarian ethos and a parallel anti-authoritarianism which provided the basic conditions for the later theological and political controversies. The Reformation, the first major formative influence in the realm of ideas after nationhood was achieved, shaped the temperament as well as the spiritual condition of the Lowland Scot. It bequeathed to the minds of the people the importance of the word by revealing, almost exclusively through the scriptures, the nature of God, and their bibliolatriy encouraged both a tendency to dogmatism and a high level of literacy during the succeeding centuries. The democratic structure of Scottish church government and the establishment of parish schools re-inforced these characteristics, for they granted to the people the tools and raw material of argument.<sup>(6)</sup>

The political extremism of the men of the Irvine Valley during the 19th century can be seen as a renewal of their fanaticism during the 17th century in ecclesiastical matters, but their attachment to Thomas Muir and membership of societies of the Friends of the People is evidence of their basic education and understanding of important principles, independent of their fiery tradition. When they sang "Scots Wha Hae" at the reformers' assemblies they, like Burns, not only recollected Bruce's campaign for freedom, but also "the glowing idea of some other struggles, of the same nature, not quite so ancient."<sup>(7)</sup>

In the early part of the 19th century agnosticism increased as the critical faculties of the people were directed finally at the scriptures, stimulated in this by the sycophancy of the church to the Tory oligarchy. Long/

(6) There was a parish school in Galston as early as 1627.

(7) Letter from Burns to Thomson, September 1793.

Long before the story of the Bible had been questioned by Darwin they had made a study of the new science of geology which, for them, demolished the account of the genesis of the world described therein.<sup>(8)</sup> Individualism and frugality said to be attributes of Calvinism were found to be profitable when given secular expression in laissez-faire capitalism, but equally powerful influences in Calvinism led, in those who were not raised above their fellows, to a strong attachment to the Chartist movement, socialism and the trade unions. In Ayrshire the people did not have to wait for urbanisation or to be typed as a proletariat before acquiring a radical or revolutionary feeling; this had long been a part of their history and in the Irvine Valley numerous examples were current in the spoken tradition.<sup>(9)</sup>

The thrift and industry of the Scot can be traced more directly to his tough environment than to the "Institutes" of Calvin and, although life in the district was hard, it was only rarely unendurable, from the time of the agricultural improvements in mid-18th century. In the winter of 1812-13, during a severe slump in trade, the weavers were able to remain on strike for seven weeks while the government allowed the decision of the Lanarkshire justices in favour of the operatives to be ignored. Throughout the late 1820s and in the 1830s, a long and sustained period of depression for the handloom weavers, and before jacquard looms became general in Loudoun and Galston parishes, there is evidence of poverty and demoralization, but only in one instance in 1819-20, did a local commentator believe that the people would be driven to unlawful methods of relieving their distress.<sup>(10)</sup> At a later date, during the cotton famine at the time of the American Civil War, /

(8) MacLeod, op.cit., p.166. "The Principles of Geology," the seminal work in the field was published by Charles Lyell in 1830-33.

(9) Government forces suffered their only defeat in the Covenanted period when local men overcame Claverhouse at Drumclog, near Darvel.

(10) Diary of John Wallace, 26th August, 1819.

War, when large charitable gifts were sent to Lancashire, the people of Newmilns and Darvel made no appeal and received no assistance from outside their own area.<sup>(11)</sup>

They survived every economic and political setback, until a new threat appeared to challenge their successful line in leno and book muslin curtains.<sup>(12)</sup> Nottingham lace curtains, manufactured on a large scale in and around that town since Livesay's machine was invented in 1846, were falling in price and beginning to take precedence in the market. Lenos and lappets had carried the local handloom weavers over thirty years from the end of the vast demand for muslin dress goods, but in 1873 there was a catastrophic depression in this trade. By that date Alexander Morton of Darvel had shown that direct contact with wholesale warehouses in the large English cities could win abundant orders for the weavers employed by him. He was able to bypass the Glasgow manufacturers as they had lost pre-eminence in the production and marketing of fine cotton goods by the end of the American Civil War, and their difficulties then followed those of the financial crisis of 1857 and the collapse of the Western Bank, which had financed the majority of firms in the prosperous sewed muslin trade. By the end of the century the cotton industry of Glasgow was greatly contracted and the initiative taken by Morton in merchanting his own cloth set the pattern for the Ayrshire lace firms as they were established.

From/

(11) Gilchrist, op.cit.,p.131.

(12) At an International Exhibition in London in 1862 Messrs.Yates, Brown and Howatt, Manufacturers, Glasgow received an award for their jacquard curtains. "It may be interesting to state that these curtains were all, with perhaps one exception, executed in this district [the Irvine Valley] and indeed the same patterns that took so well are still being wrought in Darvel, Newmilns and Galston. They are two machine curtains, from eight to twelve quarters in breadth. The designs, which were sent to Galston for the purpose of getting the cards cut, all displayed artistic excellence, and some of them were very large, having from 8,000 to 15,000 cards on the set." "Ardrossan and Saltcoats Herald." 4th June, 1862.

From 1873 Britain experienced a slump in prices and profits and in Nottingham in the following year there was a serious increase in unemployment. Profit margins were reduced and the Nottingham lace firms forced into greater price consciousness. Many of them went out of business,<sup>(13)</sup> while others attempted to cut rates and, countered by a strike of the powerful lace unions, moved out of Nottingham to Derbyshire and to towns considered far enough away to be at a safe distance from union interference. Yet, while prices fell output increased and the level of effective demand rose continually. The Nottingham firms could not take much advantage from this situation. The industry in that area had reached a point in its development where it could hardly survive in its existing shape and organization under the stress of falling prices.

Unable to cut rates, many working with outdated machinery and without the necessary credit for the high capitalization required for the accommodation and installation of the latest Levers and curtain machines, these companies were defenceless against foreign intervention. Lace machines had reached a stage which required a high degree of engineering skill in their making, and high capital outlay in their production demanded ready and continuous sales. By this time the machines were entirely of metal and the work of specialist builders. The lace companies could no longer control or influence their sale and their makers encouraged buyers from all sides on hire purchase terms.

In the Irvine Valley savings were large with many prepared to undertake the hazards of investment once trustworthy, local entrepreneurs had proved their business qualities in a wider field. Alexander Morton in Darvel and Joseph Hood in Newmilns would have found it difficult to avoid success once the product of their new enterprise in lace reached the marketing stage. Middle class homes and those of the steadily employed working class turned strongly/

(13) Working Party Report "Lace." p.13.

strongly to lace furnishings. With cheap land and labour, ample capital,<sup>(14)</sup> new machinery and better methods the Scots achieved a tremendous cost advantage over Nottingham, and when a higher level of employment returned in 1897 along with rising prices, production rose steadily to its maximum ten years later. By that time Scottish firms had the largest share of British output in furnishings, and had established branch factories in Norway, Sweden, Denmark, Spain and the U.S.A.

The principle of business opportunism in creating industries based on a new invention or a far-reaching technological advance was as important at the end of the century as at the beginning, but with the added requirement in textiles of expert management in combination with efficient production methods in order to live in the more competitive conditions in home and foreign markets. In this the Scots lace manufacturers excelled. They were able to organize their businesses from the purchase of the yarn to the sale of the product and with the use of the customary wholesale warehouses, and agencies throughout the world, they were able to avoid the pitfalls resulting from inadequate information and poor communications which had dogged the trade of handloom cotton and silk goods to India, Burma and the Far East, North and South America.<sup>(15)</sup>

Even after the factory organization of manufacturing can it be said that the essential character of the Irvine Valley changed? The national and regional differences of people in the period of time covered by this investigation were dependent more upon organic development and growth from separate historical backgrounds than the degree of industrialization/

- (14) Many who gave loans to some of the manufacturers received no share in the business, only interest, and were paid back when profits allowed it.
- (15) Partners in the Irvine Valley lace firms occasionally combined their holidays abroad with inspection of their foreign factories, agencies and offices.

industrialization they had experienced. The lack of agreement or co-operation between the lace workers of Ayrshire and Nottingham is an expression of differences which should not have existed among persons employed in identical manufacturing processes. Political aspirations and ideals of the working class might have been expected to bring workers together across natural and national boundaries, but the different character of the people endured, shaped over hundreds of years by influences with very little in common and therefore a community of interests and loss of individuality could not occur purely from the pressures of a common industrial environment.

The violence of the 1897 lock-out was proof of the sense of outrage felt by the workmen that such an alien and inappropriate means should have been adopted by the manufacturers to enforce their will. The eventual return to paternalism, after the full recognition of the Union, displayed an acceptance by the manufacturers of their workmen's strong negotiating position, and the desire on their part to avoid the build up to head-on clashes which in a small local area and in tightly-knit communities made industrial strife, for both sides, completely unendurable.

The employers in the Ayrshire lace industry experienced a change of attitudes at the close of the 19th century. Drawn mainly from a background of handloom weaving or weaving agencies, their lives were naturally altered through making a quick fortune in the trade, but it was a partial change which could not expunge the characteristics acquired in a life time in a common environment with their workers. It would have taken two or three generations of ownership with an education and residence outwith the community to have produced the type of capitalist who could take decisions indifferent to social consequences. In such circumstances the power of economic change could not overwhelm the strength of social influences in the district, and exploitation and discrimination when they occurred had a local compassion which made/

made them at once more tolerable and more open to mitigation.<sup>(16)</sup>

The structure of the community in all its aspects was easily comprehended by the workers and the evils incurred by large scale industry, through polarisation of the classes, loss of contact and therefore of understanding, was more readily avoided. The attitudes, character and patterns of behaviour of the lace workers of the Irvine Valley persistently owed more to the formative influences of their pre-industrial traditions and institutions than to any transformation elicited by a change from domestic artisan to factory hand.

The resources of the district in skill and savings from weaving and agriculture have been described, but among those and other factors the catalytic force which led to the success of the machine-lace industry in the Irvine Valley lay in the untapped capacities of the local population, concentrated in a single area and undispersed in various conflicting enterprises. These communities were models of others which, having avoided first the diluting experiences of mass emigration and then the social problems associated with large scale immigration from poorer areas, released dynamic energies which found their outlet in the new industry. In the 19th century labour was brought, in most cases, to the developing industries, causing numerous social upheavals at the points of arrival and departure. In the Irvine Valley's "industrial revolution" the new industry was brought to the established communities and provided a stable and prosperous local economy for many years.

## II

### Epilogue

The First World War caused no great disruption in the/

- (16) In contrast, The Bleachers Association provided a social club and bowling green for their employees, but during a dispute in 1932 they issued an ultimatum that "unless the workers were prepared to accept the offer made in July [the manager's] instructions were to dismantle the works at Newmilns." The workers voted against acceptance by fifty-two votes to ten and the Association carried out its threat.

the industry, a shortage of labour and government restrictions on shipping to the Netherlands, one of the most important markets, proving the worst problems to be faced. Government orders for mosquito net helped to keep the industry busy and the virtual disappearance of French and German competition allowed the factories to continue at a reduced rate of production and in a position to take advantage of the exceptional post-war sales boom which lasted well into 1920, before an equally dramatic slump set in.<sup>(17)</sup>

Thereafter the lace trade moved along until the Second World War well below capacity, experiencing deeper troughs and lower peaks than at any time since 1875 and in the actions of the manufacturers displayed all the features of an industry on the defensive. It looked as if the lace weavers were about to suffer the same decline as the plain-loom weavers in the second and third decades of the previous century.

Many factors contributed to the depression. There was a change in fashion detrimental to lace which affected the Levers trade, but also touched the furnishing section as the demand for pairs of long curtains fell away. It was replaced by a trend towards casement curtains, which cut the required yardage in a household almost by a half. Even for this article competition increased from alternative textiles, mainly in heavier window-furnishing fabrics, in cretonnes and brocades. The supply of lace goods greatly exceeded demand, creating a buyer's market with pressure on prices. A scramble for sales developed for the home market as orders from foreign countries, especially in Europe, dried up and unrestricted imports flowed into Britain from other lace producing countries.<sup>(18)</sup>

The/

(17) With the forward buying of yarn at high post-war prices many lace firms were placed in difficulty when sales collapsed in 1920 and they were pressed to accept delivery.

(18) The French lace industry had been practically destroyed in the war and rebuilt from reparations on modern lines with new machines. With the franc devalued, French goods had a price advantage in world markets.

The lace manufacturers took two steps immediately to counteract their difficulties. To prevent encroachment by other textiles they started their first advertising campaign in association with the Nottingham manufacturers and pressed for inclusion of lace goods in protective duties then being contemplated by the government. Also, among themselves they made their first abortive attempt to secure co-operation against price and quality cutting and piracy of designs.<sup>(19)</sup> A big publicity drive was begun in 1923 and continued through 1924. It incorporated stands at the Wembley Exhibition,<sup>(20)</sup> but very soon manufacturers were complaining about patterns shown in the displays being stolen.<sup>(21)</sup>

On tariffs, a measure of success was achieved. The Finance Act of 1925 placed an import duty of thirty-three and one third per cent ad valorem on lace goods for a period of five years, but production and exports still decreased in this period. Exports of lace in 1924 were worth £1,582,000, falling in 1930 to £541,000, while output in the brown dropped from £3,593,000 to £2,241,000.<sup>(22)</sup> France with her refurbished industry and lower wages was once again the greatest threat to British lace. Holland and Belgium which had formerly acquired eighty per cent of their lace furnishings from Britain had cut these imports to seven and a half per cent by 1930, the remainder was purchased principally from France.<sup>(23)</sup>

Lace furnishings however were less badly hit than other types and trade had improved to Commonwealth countries, to Australia, New Zealand, Canada and South Africa in particular.<sup>(24)</sup> But boom conditions in the Scottish industry/

(19) Manf. Ass. Minutes, 4th July, 1921.

(20) Ibid. 27th March, 1923. The Scottish manufacturers objected to their product being described as Nottingham lace.

(21) Advertising posed a constant dilemma of how to show goods without immediately having attractive designs copied.

(22) Census of Production 1930, p.216.

(23) Manf. Ass. Minutes, 24th June, 1930.

(24) Ibid. 24th April, 1929. Five new Ayrshire companies went into production in the 1920s, three curtain lace, one braid lace and one madras. Vid. Appendix 3, pps. 205, 206.

industry which had developed in 1927 were menaced by the general economic depression and the prospective expiration of the tariff in 1930. All the employers' associations and trade unions in Scotland and England had held two conferences in 1929 to press the Labour government with its antiquated economic doctrines to renew the duties on lace. But they allowed them to lapse until in the crisis in 1931 the National government applied a new tariff of fifty per cent, which returned to thirty-three and one third per cent a year later.

The first introduction of a tariff in 1925 had induced an improvement in sales in the home market, but this time it brought no increase in activity. Conditions deteriorated further and prompted the manufacturers to look elsewhere for means to increase sales. To cut costs they decided to impose lower rates on the workers. A lock-out followed and was met in retaliation by the prohibition of all overtime by the Union.<sup>(25)</sup> Business began to pick up in 1933, but by that time the manufacturers had gone through the worst period in their history. Although all the Scottish companies survived, three or four different proposals were made in the mid-thirties to promote a combination of manufacturers or at least to urge an agreement on minimum prices and qualities, and to request that consideration be given to the limitation of output, the collective buying of yarns or the establishment of a marketing association or a central selling agency. Finally in 1936 these questions were given serious treatment by a chartered accountant with the presentation, at the behest of the Manufactuerers' Association, of a memorandum on the state of the Scottish industry.<sup>(26)</sup>

The Lace Memorandum recommended that penalties be applied/

- (25) The employers required their workers to accept a twenty-five per cent reduction. After negotiations they resumed with a six per cent decrease in rates. there had been an agreed reduction of twelve and a half per cent in 1922 and together they brought lace weavers' wages down to £4 approximately, to about twice as much as other skilled craftsmen.
- (26). "Memorandum on proposals for agreement between Ayrshire manufacturers for the improvement of working conditions." Records of the Scottish Lace Furnishing Manufacturers' Association.

applied when clauses were broken in the rules of the Association governing minimum prices. This proved too strong for some of the members, although without it the self-destructive practices of the past would have been perpetuated. Three Darvel companies declared they would not be bound by any decision of the Association,<sup>(27)</sup> and it again became moribund until a temporary committee met in October 1938 under the Lace Curtain and Curtain Net Manufacturers' Agreement.<sup>(28)</sup> The new federation embraced eighty-three per cent of the thread capacity of the industry and it seemed to be a workable agreement to improve the trade and to suppress harmful dealing, even although three Nottingham and two Darvel companies remained outside, as well as one in Newmilns and one in Galston. Objection was made to the inspection of company books by an independent accountant and to an agreed retail mark up of lace goods, but late in 1940 other companies retired from the Association just as the wartime Limitation of Supplies Order was coming into force. It restricted home sale to sixty-six and two-thirds per cent of earlier value,<sup>(29)</sup> and rendered superfluous the excellent advertising campaign undertaken by the Association over the three previous years.<sup>(30)</sup>

The companies which left in 1940 could not be persuaded to remain in the agreement while those outside undercut their prices. Their withdrawal brought the thread capacity of the Association below the point where minimum/

(27) Man. Ass. Minutes, 31st March, 1936.

(28) Ibid. 14th October, 1938. Scotland and Nottingham had separate group committees in the new body, The Lace Curtain and Curtain Net Manufacturers' Association.

(29) Reduced further to twenty-five per cent of 1939 sales in January 1941.

(30) Manf. Ass. Minutes, 7th December, 1940. They immediately embarked on an "Anti-splinter Net" campaign, intended to protect people from bomb blast.

minimum prices could be enforced on a decisive number of manufacturers and this, the most important clause, was allowed to lapse. By this time the wartime blackout had ruined the market for lace window furnishings and, as an alternative, government orders were sought for anti-splinter net.

In the early years of the War about one million yards were produced weekly, and during hostilities over 110 million yards of mosquito and sandfly netting was made to government specification by British Lace Furnishings Limited,<sup>(31)</sup> a company formed in July 1942 by forty-nine firms out of the fifty-three in the curtain section in Scotland and Nottingham.<sup>(32)</sup> Through the concentration of the industry in one company during the War, working government orders, much financial benefit accrued to the members who had acquired shares based on the annual turnover of the separate firms. New life flowed into the trade and, since fashion had again been swinging towards lace in the years before the War with sales improving, the industry emerged from the War in an unexpectedly vigorous condition.

Unfortunately the owners of the individual lace companies/

(31) Other wartime orders ranged from camouflage net to white face veils and for inner soles for jungle warfare.

(32) Only eleven point and finer machines were suitable for these nets, but a sufficient number was available to keep sixteen factories out of thirty-two in Scotland and thirteen out of twenty-one in Nottingham.

companies could not be prevailed upon, by the advocacy of a few, to remain in the wartime combine. A post-war boom was expected in textile furnishings, and family independence and company pride were re-asserted in the prospect of a seller's market.<sup>(33)</sup> British Lace Furnishings Ltd. was wound up in 1947 and with it the advantage and economies of a combined organization, which might have proved more adaptable in subsequent years, were lost.

The expected boom in sales materialised in home and overseas markets, but the first characteristic of lace to suffer was quality, as a result possibly of the shortage and high price of cotton. In the early years, almost any article could be sold and some manufacturers marketed a wide textured and coarse fabric held together until the first laundering by a heavy dressing.<sup>(34)</sup> Inferior quality/

- (33) The workers remain as independent as the employers. The Scottish Lace and Textile Workers' Union is one of the few purely Scottish unions left. It is likely to remain free of absorption by larger general unions being financially strong, its relatively strike free history, summarised below, having led to the accumulation of large funds.

| <u>Date</u> | <u>Reason</u>              | <u>Area Involved</u> | <u>Type of Stoppage</u> | <u>Length of Stoppage</u> | <u>Result</u>              |
|-------------|----------------------------|----------------------|-------------------------|---------------------------|----------------------------|
| 1897        | Wage claim                 | Newmilns, Galston    | Lock-out                | 21 weeks                  | No increase. Longer hours. |
| 1908        | Rate reduction             | Darvel               | Strike                  | 13 weeks                  | 7½ per cent reduction      |
| 1912        | Time-v-piece rate          | Newmilns, Galston    | Lock-out                | 5 weeks                   | Piece-rate enforced.       |
| 1914        | General demand             | Whole trade          | Strike                  | 9 weeks                   | Wage advance.              |
| 1926        | Support for general strike | Whole trade          | Lock-out                | 1 week                    | -                          |
| 1931        | Rate reduction             | Whole Trade          | Lock-out                | 12 weeks                  | Smaller reduction.         |
| 1941        | Rate reduction             | Whole trade          | Strike                  | 3 weeks                   | Reduction restored.        |

- (34) In a reply to the manufacturers on the question of post-war reconstruction, the Union again stressed the necessity of "doing away with the production of low quality goods in the lace trade." Union Minutes, 24th April, 1943.

quality in style and manufacturing was common at the time in most consumer goods, but in a fashion industry the whole range of the product could be adversely affected and quickly lose its name against alternatives superior in appearance and durability.<sup>(35)</sup> The inevitable change in taste in textile furnishings occurred in the early fifties and, coinciding with the collapse of important markets in the former Dutch East Indies, Australia and Egypt,<sup>(36)</sup> created the first prolonged recession since the early thirties. Table 14 shows a drop in gross and net output in the returns of the Census of Production for the years 1935 and 1954.

TABLE 14  
Gross Output and Net Output of the  
Scottish Lace Furnishings Industry  
1924 - 1954

| <u>Date</u> | <u>Average Number of<br/>Persons Employed</u> | <u>Gross<br/>Output<br/>£000</u> | <u>Net<br/>Output<br/>£000</u> |
|-------------|-----------------------------------------------|----------------------------------|--------------------------------|
| 1924        | 3,450                                         | 2,133                            | 650                            |
| 1930        | 2,767                                         | 1,700                            | 658                            |
| 1935        | 3,061                                         | 1,614                            | 635                            |
| 1948        | 2,057                                         | 4,081                            | 1,864                          |
| 1951        | 2,322                                         | 5,697                            | 2,211                          |
| 1954        | 2,060                                         | 4,450                            | 1,570                          |

(Census of Production 1924, p.226, 1930, p.220  
1935, p.220, 1948, p.23, 1951, p.18, 1954, p.3.)

The market for cotton net window furnishing has steadily declined, although the trade in other lace products of the curtain machine, in tablecloths, bedspreads and other napery has remained relatively constant, while sales in new products such as brushed nylon blankets and pram covers have greatly increased. In the mid-sixties a boom in dress lace within the compass of the curtain/

(35) Drip-dry and non-shrink qualities were requested by housewives, but the cost of cotton lace to these requirements would have priced it out of the market.

(36) The Australian market was closed in 1952.

curtain machine produced many lucrative orders, but overall the light appearance of synthetic fibres replaced cotton in the housewife's favour and terylene, supported by the resources and advertising capacities of I.C.I., its manufacturer, has been almost exclusively adopted.

Table 15 presents a view of the present transition in the Ayrshire lace industry. The figures are for Great Britain, but the largest production in these lines, lies in the hands of the remaining firms in Newmilns and Darvel. While the product of the Nottingham lace curtain machine declined that of the warp-knitting and terylene weaving machines improved. By the mid-sixties over £1 million had been invested in the new types of machines,<sup>(37)</sup> and it eventuated that only those companies which have introduced them have survived, while those which relied on lace only have one after the other, from 1955 gone into voluntary liquidation or have retired from the business.<sup>(38)</sup>

TABLE 15

Sales and Exports of Finished Goods made on  
Lace Furnishing and Warp-knitting Machines.

| <u>Date</u> | <u>Sales of Finished Goods</u>            |                                         | <u>Export Sales of Fin-<br/>ished Goods.</u> |                                         |
|-------------|-------------------------------------------|-----------------------------------------|----------------------------------------------|-----------------------------------------|
|             | £000                                      |                                         | £000                                         |                                         |
|             | <u>Lace Furn-<br/>ishing<br/>Machines</u> | <u>Warp-Knitt-<br/>ing<br/>Machines</u> | <u>Lace Furn-<br/>ishing<br/>Machines</u>    | <u>Warp-Knitt-<br/>ing<br/>Machines</u> |
| 1963        | 2,616                                     | 5,453                                   | 914                                          | 965                                     |
| 1964        | 2,670                                     | 6,130                                   | 937                                          | 1,111                                   |
| 1965        | 3,077                                     | 6,434                                   | 1,104                                        | 1,093                                   |
| 1966        | 2,466                                     | 6,574                                   | 938                                          | 1,054                                   |
| 1967        | 2,414                                     | 7,485                                   | 894                                          | 963                                     |
| 1968        | 2,984                                     | 9,524                                   | 1,392                                        | 1,142                                   |

(Board of Trade, Business Monitor, Lace, Production Series,  
First Quarter 1969)

The/

- (37) The following are the main types of modern warp-knitting machines:- F.N.F.(Brit) Raschel (Ital) and Karl Mayer (Germ). The first type used in the Irvine Valley was the British F.N.F.
- (38) The number of separate companies has been reduced to twenty all situated in Newmilns and Darvel, apart from one in Kilmarnock.

The deterioration in the fortunes of some of the companies can be partly ascribed to the malaise which overtook management in the unfavourable years after 1955.<sup>(39)</sup> In the past, success relied on the abilities of a sales manager or a production manager, or on a combination of both. Since the Second World War a new type of manager has been required to take over, or to make a major contribution to, the direction of each company, especially in the field of costing and budgetary control.

A survey of six companies in 1965 reported wide fluctuations in costs,<sup>(40)</sup> ranging in the price of yarn in relation to prime cost from thirty-seven per cent to sixty-two per cent, and in wages to prime cost from eight per cent to thirty-five per cent. Table 16 also shows among other wide variations, gross manufacturing/

Table 16

The Extreme Variations in the Operating Ratios among Six Ayrshire Lace Companies.

|                                                            | <u>Highest<br/>per cent</u> | <u>Lowest<br/>per cent</u> |
|------------------------------------------------------------|-----------------------------|----------------------------|
| Return on capital employed                                 | 18                          | -36                        |
| Operating profits as percentage<br>of sales                | 10                          | -33                        |
| Sales as percentage of operating<br>assets                 | 614                         | 104                        |
| Sales as percentage of prime cost                          | 138                         | 98                         |
| Wages as percentage of prime cost                          | 35                          | 8                          |
| Yarn as percentage of prime cost                           | 62                          | 37                         |
| Finishing as percentage of prime cost                      | 35                          | 18                         |
| Gross manufacturing profit as<br>percentage of sales value | 20                          | -6                         |
| Annual sales in 1964 per direct<br>employee                | £5,100                      | £2,100                     |

(Pilot Survey of Six Member Companies.)

(39) In 1955 good results were still being obtained. The turnover of the furnishing industry was £5,714,000 in finished goods, against £15 million for the lace industry as a whole. Over £2 million was earned in the export trade. Records of the Manf. Ass. Unpublished Essay.

(40) Ibid. "Pilot Survey of Six Member Companies."

manufacturing profit ranging from twenty per cent in one case to a loss of six per cent in another of sales value. The variations had no correlation with the size of the firms and as throughout the history of the trade the inconsistencies were such "as to make it quite impossible to identify the characteristics distinguishing the successful company from the unsuccessful or the good year from the bad."<sup>(41)</sup>

The average return on operating capital was negative over the five years up to 1965, giving ample evidence of the precarious state of the industry at that time. A wide divergence also appeared in the annual sales per direct employee, also unrelated to the size of the firms. The highest return was not achieved through the sale of cheap goods, for the company showing the best result had also the highest average finishing at thirty-three per cent and the second highest average yarn prices at fifty-six per cent of prime cost.<sup>(42)</sup>

At this stage in the trade's development, the independent nature of the lace manufacturers was in no way diminished.<sup>(43)</sup> Although the amalgamation of the remaining companies would prove beneficial, bringing economies in administration, distribution, finishing and marketing, and in material, labour and management costs, the owners appear satisfied to trust in their own survival in a contracted industry. Many of their activities over the past few years have seemed suicidal in their lack of foresight. The Manufacturers' Association has stood by powerless while member companies which have gone out of business sold their machines abroad, in Italy, Greece, India, Israel and South America. They have in fact, nurtured/

(41) Ibid. Section, "Financial Appraisal."

(42) Prime Cost = Yarn + Wages + Finishing + Grey Purchased + Finished Goods Purchased.

(43) Recently and for the first time three companies have merged, one each from Darvel, Newmilns and Nottingham.

nurtured competition in foreign countries, for no new lace furnishing machines are being made anywhere in the world, making the capacity to compete dependent upon the availability of old or renovated machines.

On approaching the centenary of the introduction of machine-made lace and the bi-centenary of cotton textile production, weaving is again in danger of extinction in the district. However, textiles may again succeed in the new lines at present being developed and ensure the continuity of the three communities in the Irvine Valley, based on indigenous skills.<sup>(44)</sup> There has been an enduring pattern in the manufacture of gauze and net fabrics which has still not been effaced by the 1970s. As handloom production lasted longer than in most areas, an early factory style of manufacturing, with anachronistic social overtones, has also persisted as an effective competitive element into a period of regimented and strictly organized work forces.<sup>(45)</sup>

Successive governments have taken an inconsistent approach towards financial assistance for established industries. Money has been available for agriculture and nationalised concerns and also for large modern organizations whose demise, it was considered, might harm the national interest. The first modern warp-knitting machines installed in the district were made by an English company, but German and Italian machines have overtaken them in technical development and have practically taken over the market. Government assistance at the right time might have kept the greater part of that market in British hands.

Similarly, it was decided that financial support would be withheld from old or decaying industries, and that new industries should take precedence. It does not appear to be realised that by the assisted replacement of capital/

(44) There was a heavy loss of personnel during the 1950s to new engineering works in Kilmarnock and in particular to Massey-Ferguson and the Glacier Metal Co.

(45) Two attempts to introduce work study to the industry were frustrated by the Union.

capital equipment these older industries could be transformed into new, based on established skills and ancillary trades which are not duplicated a hundred times over in various parts of the world. For many, the people in the lace industry in the Irvine Valley will seem as distant in time and spirit as the people in pre-industrial Scotland. They will have to depend, manufacturers and workers alike, mainly upon themselves in their efforts to maintain their small local industry and individual communities in times of large-scale organizations and of governments engrossed and captivated by the problems these create.

APPENDIX I

The Handloom - the effect of its technical advance in the Irvine Valley.

The weavers and wrights of the Irvine Valley invented a number of new methods in weaving and new attachments to the handloom during the hundred years between 1775 and 1875, but their success did not lie solely in these inventions for new practices were soon stolen and disseminated.<sup>(1)</sup> The more vital factor for Irvine Valley weavers was their sound financial position over generations which enabled them to adopt quickly novel methods discovered in their midst, and also to install immediately inventions made elsewhere.

The handloom in use in Scotland had not developed much up to the mid-18th century. Its simplest form had two heddle frames which were raised or lowered by the treadles worked by the weaver's feet. In weaving plain cloth alternate ends were raised, forming a shed for the shuttle to pass through with weft thread.(Figure 1,p181). The first variation in technique occurred when two or three warp threads were placed through each heddle eye working them as one, which, when crossed by a weft shot, gave a corded cloth. Later by the addition of extra heddle frames and a more intricate system of treading the numerous class of diagonally patterned cloths called twills were introduced and by the addition of colour, in warp and weft, the loom was capable of striped and checked cloth. These were common fabrics in wool and linen before most of the looms in the west of Scotland were converted to cotton in the last two decades of the 18th century.

At the same period of time figuring was achieved and patterns, widely different and free from restrictions of the diagonal and checked appearance of the twills were worked on to the cloth by means of extra threads, white or coloured. The extra weft shots which formed the pattern/

- (1) Chief among technical advances in the handloom were the various lappet mechanisms, the harness loom, the dobby, the sewing frame or swivel and the jaquard handloom.

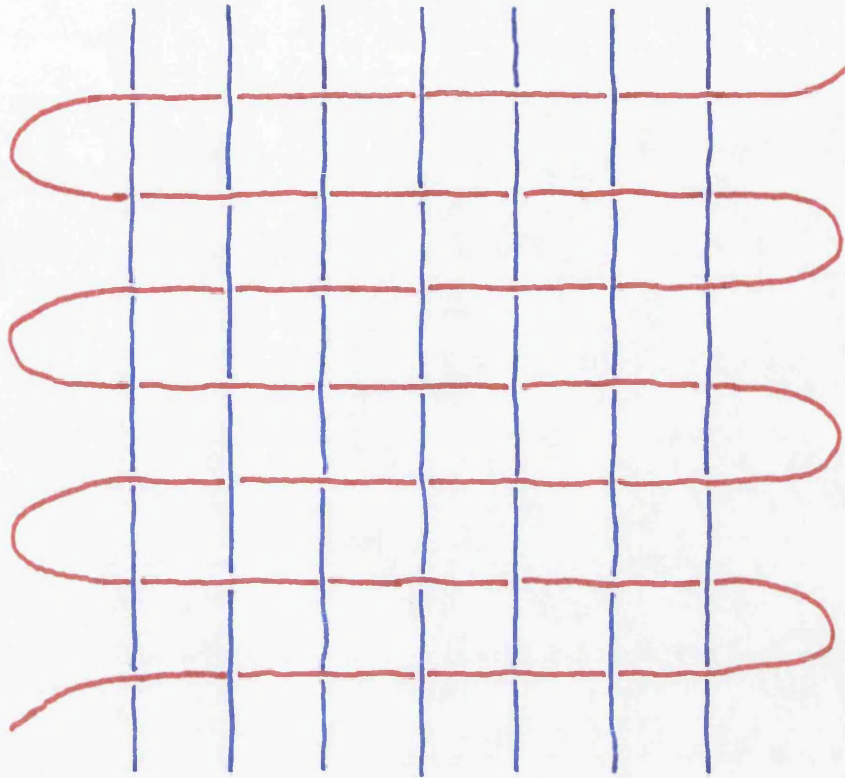


Figure 1. Plain weave: alternate warp threads crossed by a weft thread.

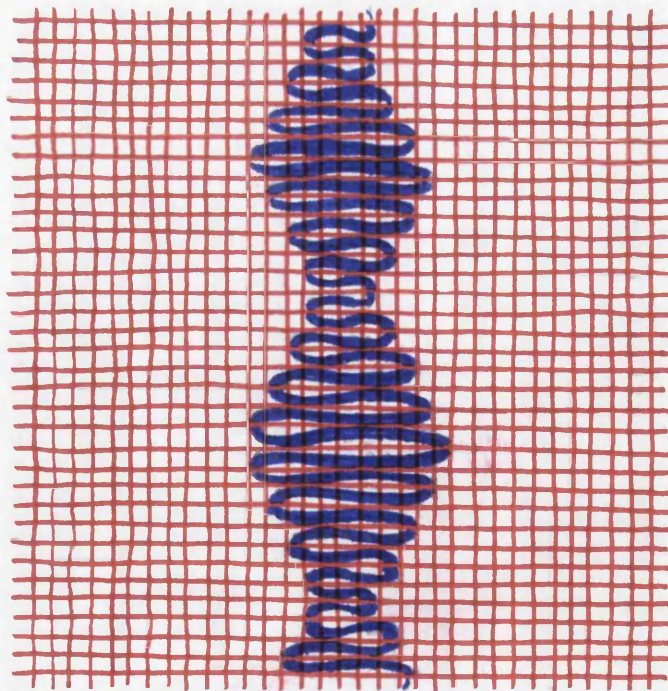


Figure 2. Lappet figuring: extra warp thread tied in by weft picks.

pattern were floated loosely on the surface of the cloth between the figure which was brought up, typically in the early part of the period, as a simple spot or geometric design. Later the floated threads were cut off leaving the figure in relief against the plain background. This clipping process, before the introduction of the cropping machine, was done by hand by women and girls. Mention of these in 1791 in the Parish of Loudoun shows that already in that district the intricacies of figured weaving had been mastered.<sup>(2)</sup>

This type of weaving is generally only used in combination with gauze production, the best basic fabric for figured cloth. The extra threads were retained in the cloth where the figure was formed and the best means of fixing severed threads was by the twist imparted to the warp ends by a doup, or half heddle. None had precedence over the weavers of the Irvine Valley in this product. After 1779 the fine, strong thread spun on Crompton's mule was available for cotton manufacture throughout Britain.<sup>(3)</sup> A year later James Monteith warped the first muslin web in Scotland. During the following twenty years cotton manufacture spread over the south-west and central part of the country. When it reached the Irvine Valley light work in silk was already coming off the handloom and as soon as finer cotton thread arrived from the spinners, silk gauze gave way to cotton gauze or muslin.

Soon after the beginning of the 19th century lappets were introduced. Floating and clipping away threads of thicker, expensive weft to obtain figured cloth was extremely wasteful and the more elaborate figuring by hand sewing on the tambour frame was also slow and costly. It was to displace these methods or at least to produce cheaper alternatives that the lappet system was invented. It was the furthest refinement of the handloom reached at this/

(2) O.S.A. Vol.3, Parish of Loudoun, p.104.

(3) The first cotton mill in Scotland was built in 1778 at Penicuik. An earlier mill burned down in 1811 is said to have been erected in 1771, at Strathaven. Vid. Gebbie, op.cit., p.148.

this stage.

In weaving plain cloth on the ordinary handloom warp threads were passed from the beam at the back of the loom, over and under the lease rods, through the eyes on the heddles and through the reed on to the cloth beam at the front. The treadle, moved by the weaver's feet, controlled the up-and-down motion of the heddle frames, creating an opening or shed between the alternate threads of the warp. Through each shed and its succeeding counter-shed the flying shuttle was projected, bearing its pirn of weft thread from the shuttle box at one side to the shuttle box at the other. The crossed weft was beaten up by the reed frame against the cloth already completed on the front beam. In lappet weaving whip or extra warp was used.

The earliest lappets were made by the Paisley silk weavers, the figuring effect being obtained by an intricate and difficult process utilizing an extra beam, threads from which passed through holes in glass beads as in bead lam lappets. However, the most satisfactory method was introduced by the invention of the wheel lappet.<sup>(4)</sup> Grooves cut in toothed wheels, attached to the side of the loom, gave a lateral motion to needle bars carrying the whip. The needles worked the extra warp thread into the cloth and these were tied in at the extremity of each sideways motion by the weft. Thus, stripes, spots, ziz-zag lines and other simple designs of different colours could be woven into the cloth without any waste of yarn. (Figure 2, p.181). From the early part of the century lappets were made on the handlooms of the Irvine Valley and continued to be until finally the system was copied exactly on the power loom on which they remained in production up into the second quarter of the 20th century.<sup>(5)</sup>

Lappet patterns were, however, limited by the scope of/

(4) Murphy, op.cit., p.180.

(5) Lappets were one of the leading products of the power looms of the firm of David Ligat, Newmilns, at the beginning of the century. The firm stopped this line just before the Second World War.

of the mechanism, and the next step to increase the figuring capacity of the handloom was to raise the number of leaves. Once looms were fitted with ten leaves or more, the number of men with the manipulative skill to operate all the heddle shafts and treadles at speed was restricted. Yet if progress in design was to be achieved a greater range of variables in the utilization of the warp threads was necessary, and the control of every warp end was desirable.

The harness loom was developed for this purpose and was especially used in the elaborate weaving of Paisley shawls. Each warp thread was thereafter considered separately. They were taken out of the heddle shafts and only those which were to be woven in the same way (perhaps crossed by a colour as part of a figure) were lashed together. Although freed from the restrictions of the heddle shaft, the warp ends could still be grouped and controlled in a number of ways. This was the work of the draw-boy. The harness cords were passed over pulleys at the top of the loom and when they were lashed together in sequence in pre-determined groups they were pulled by the draw-boy and the work proceeded in collaboration with the weaver.

Up to this time the weaver had generally been his own designer and had been able to carry out all the operations involved in the preparation and working of his loom. But with the Paisley harness loom and the demands placed on it by the shawl, with its curved multi-coloured designs, all these processes became the full-time work of the specialist. Even the weaving process itself could not be practised by the weaver alone, for he required the manipulative skill and intelligent attention of a good draw-boy, and not a mere passive assistant, for the task was of such importance that on many occasions the draw-boy developed into a youthful tyrant.<sup>(6)</sup>

In harness weaving the design was drawn first on paper/

- (6) "W.S." 19th March, 1881. Article by Joseph Hood. The weaver "could not work without a draw-boy, some of whom were both self-willed and strong-willed, so though nominally they were assistants, yet practically they were masters."

paper. If selected by a manufacturer it was then transferred to point paper, each small square of which had its own colour representing a warp thread crossed by a weft thread. The next stage was to set up the bridle, the apparatus used by the draw-boy to determine the weaving sequence of the pattern. This required first that the design be transferred from the point paper on to a frame of threads called a simple which was fitted on a lasher's frame. One man would read the design, while another lashed together the threads on the frame which represented the warp threads crossed by the same colour. When this was completed for every shot of the loom to complete a piece, the twines of the simple were attached to the cords of the harness over pulleys. Each bridle (that is all the groups of ends which were to be lifted for each weft pick) was pulled by the draw-boy, enough to allow the shuttle to pass through. To introduce a larger variety of colours to weaving, multiple shuttle boxes were added to the loom.<sup>(7)</sup> In 1812 the ten-box lay was invented, but only in Paisley was it used frequently. Elsewhere four and six-box lays were more common in figured work.

These technical advances gave fresh impetus to fancy weaving by Irvine Valley workers, following a number of years when there was a falling off in the demand for lappet work. It was at this point that weavers began to lose control of the whole productive process. Designs became more complex and more the domain of those with artistic talent. A sharp increase appeared in the number of female clippers. The work was still done by hand and by 1841 there was one clipper to every two weavers, earning from 2/- to 3/6d a week. In that year there were 419 clippers in Newmilns and Darvel.<sup>(8)</sup> Draw-boys were paid/

(7) On the principle of Robert Kay's drop box triggered by the weaver.

(8) N.S.A. Vol.V. Parish of Loudoun, p.850. Girls were employed at clipping from eight years of age.

paid from 1/6d to 2/- a week and mounters and twisters, who set up the looms when new patterns were entered or (9) a complicated web renewed, also became specialised workers. All had to be paid by the weaver and their wages entered into the cost of production.<sup>(10)</sup>

Towards the end of the 1820s one of the local wrights was the inventor of an important attachment to the loom. James Mitchell of Newmilns invented the sewing frame which enabled figuring to be obtained by extra weft,<sup>(11)</sup> this being in contrast to the lappet mechanism which figured cloth from extra warp thread. The figure produced could stand comparison with embroidery, though close inspection showed that the figuring threads of the sewing frame always lay parallel with the other weft threads of the ground cloth (Figure 3. page 187) while those of embroidery could lie at any angle (Figure 4, page 187). The figure also appeared in greater relief than those produced by the ordinary system of raising a weft figure by cropping.

The apparatus was a frame bearing a number of tiny shuttles. It was moved vertically through the warp and two bars on the frame bearing two rows of shuttles were moved laterally. The shuttles, about one inch in length, were spaced across the width of the web and their numbers limited by it to avoid crowding. The frame was manipulated by the weaver who lowered it so that the short weft threads from the shuttles were laid inside the shed and fixed between warp threads by a pick of ground weft. There was also in this method a great saving of expensive weft/

(9) Ibid. There were four mounters and twisters listed in Newmilns. in 1841.

(10) Weavers wages were from 3/0 to 8/- a week. By 1844 they had risen to 8/- to 14/-.

(11) Gebbie, op.cit., p.150. "The sewing frame, invented by Mr.Mitchell of Newmilns, about fifty years ago, was introduced."

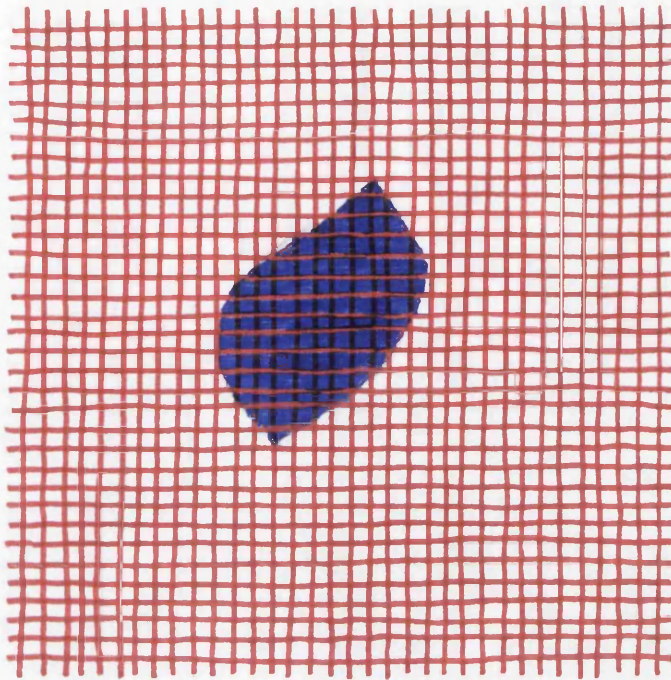


Figure 3. Sewing frame figuring; extra weft inserted within the shed.

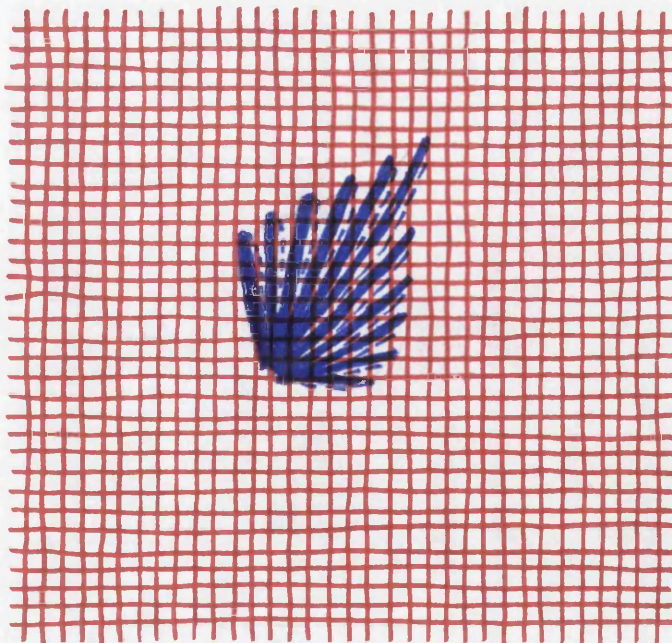


Figure 4. Embroidery figuring with threads inserted at any angle.

weft thread and if required each shuttle could bear a different colour. Sewing frame weaving was never replaced by the power loom. It fell out of use with the contraction of the market for its goods at the beginning of this century and supplanted by other fabrics such as machine-made embroidery. Although it continued in use to a small degree among the cotton weavers of the Irvine Valley, it was mainly adopted by the Strathaven silk weavers whose styles could make best use of it.

All the new methods of figuring cotton goods, adopted in the Irvine Valley during the 19th century, followed a traditional style which was to lead up without any great change, apart from means of production, to the machine made lace industry introduced in the last quarter of the same century. When cotton goods were first made in the district in the 1780s the weavers changed from makers of silk gauze to makers of cotton gauze, or muslin, figuring was done by women tambourers and this line developed into the fine lace needlework of Ayrshire. Light and semi-transparent muslin became and remained the foundation texture on which figuring, white or coloured, was worked. Later adaptations of the loom as with lappets, harness work and the sewing frame continued the characteristic product of the Irvine Valley from the introduction of fine weaving until the present day.

Each innovation in style which followed successive technical advances was attended by a boom in the product and then a falling away with occasional renewals of interest and activity. Apart from the harness loom with its draw-boy, the other methods of weaving continued with varying fortunes up to recent times and until their features were duplicated in the power loom.<sup>(12)</sup> The harness draw loom disappeared completely, after the introduction of the jacquard machine to work the cords mechanically/

(12) Anderston Foundry, Glasgow, built most of the power madras looms for the firms of the Irvine Valley.

mechanically. At first the weavers of Paisley and the Irvine Valley showed some resistance to it.<sup>(13)</sup> It had not at first the range of control over the warp that the harness loom had, and it required capital to install it. In the long run it overcame the prejudice of the weavers and proved itself over the cost of the draw-boy's wages and the occasional disasters brought about by his lack of care, fatigue or waywardness.<sup>(14)</sup>

In 1838 the first jacquard machine was fitted to a handloom in the Irvine Valley<sup>(15)</sup> and the final revolution occurred in the local weaving industry as many others followed. Norman MacLeod, Minister of Loudoun, recorded in 1841 that in the previous two or three years the jacquard machine had been brought into almost universal use and that upwards of £1,300 had been expended in Newmilns alone upon machines.<sup>(16)</sup> This venture was started by Joseph Hood. Born in 1821 he started work as a joiner in the family business, learned how to build a jacquard, perfected it, and in succeeding years became the largest producer of handloom jacquards in the country.<sup>(17)</sup> Other firms took up the work adding it to the construction of handlooms, lappet apparatus and sewing frames and the town supplied the neighbourhood, other weaving districts in/

- (13) Many factors caused this; the cost mentioned above in purchasing the machine, its initial limitations, the difficulty in learning it, headroom for its accommodation.
- (14) Bremner, op.cit., p.184. Boys were employed from the age of eight. N.S.A. Parish of Loudoun, p.850.
- (15) "W.S." 19th March, 1881. Jacquards were installed about the same time in Paisley and in 1835 they were first attached to the lace machine in Nottingham.
- (16) N.S.A. Vol.V. Parish of Loudoun, p.850.
- (17) The jacquard mounted on the loom preserved in Paisley Museum is stamped with the name "Joseph Hood, Newmilns."

in Scotland and a number in England.<sup>(18)</sup>

The machine did not affect the goods produced, merely the method of production. With it came the final refinement in pattern weaving. Others in Britain had been working along the same lines as Jacquard. An appliance of the handloom, the dobby machine (also known in Scotland as a witch) had been in use in Kilmarnock at<sup>(19)</sup> the beginning of the 19th century in Morton's carpet works. It differed from the Jacquard machine in that it worked a system of heddles, instead of selecting from all the individual harness cords. In its latest form it could work from six to forty-eight heddle shafts, the movement of each shaft being determined by a system of rotating wooden bars with holes in them into which wooden pegs could fit.<sup>(20)</sup>

The dobby, however, despite the advance in technique which it presented to the weaver, could not resist the superior powers of the jacquard in fancy weaving. It remained in use in carpet weaving for a time and is still in use today in woollen handlooms, suitable for the requirements of simple patterns, but it could not long compete with the jacquard among muslin weavers who had turned to a very delicate treatment of fabrics on the harness loom. The jacquard machine, first mounted on a loom by Joseph-Marie Jacquard in 1804, spread across France/

(18) "W.S." 31st August, 1894. "The Hoods and Mitchells were overwhelmed with orders" for jacquard machines in the 1850s.

These firms supplied Glasgow, Renfrewshire and Lanarkshire weaving districts as well as others further afield. The Hoods sent them to the carpet manufacturers in Kidderminster in addition to those nearer home in Kilmarnock.

(19) Bremner, op.cit., p.184. "Mr. Morton superseded the office of draw-boy by applying to the heddles a revolving drum studded with pins, a contrivance which answered its purpose, admirably, until it was superseded by the jacquard machine."

(20) An ingenious cross between a dobby and a jacquard machine was invented by James Smith, a Galston weaver. A model of the machine was carried by Irvine Valley weavers in a procession celebrating the repeal of the Corn Laws in 1846. Smith was awarded a prize and medal for his machine at the Great Exhibition in 1851. The model is now kept in Newmilns Public Library.

France and into Britain and was adopted by the handloom weavers of Scotland in the 1830s. Individual selection and raising of warp threads by mechanical means was the principle of the machine. In designing, each warp thread in a line of warp to be crossed by weft, was shown by a coloured square on point paper. Whereas the draw-boy pulled the lashed combination of threads on the harness loom, the jacquard machine mechanically repeated the design as shown on the point paper, which had been copied as a series of holes on long rectangular pieces of cardboard. Each card controlled a shot of the loom, the cards being attached, by lacing tapes, into a continuous roll. The perforated cards passed over a four-sided barrel which was drawn against the ends of rows of needles. Where there was a perforation a horizontal needle passed through the cardboard and caused a corresponding upright needles to be thrown off the knives, or lifting bars, of the jacquard. By this method the cords of the harness either remained stationary or they were raised, forming a shed for the shuttle.

The models produced by Hood and other wrights in Newmilns on a wooden frame were practically the same as the large metal type mounted on the curtain machine, but the Nottingham builders kept the provision of jacquards for lace machines to themselves and their manufacture in Newmilns eventually died out with the handloom. Hood's and other small engineering firms remained, however, the principal repairers of lace machines and jacquards in the district and the handloom weavers found it an easy matter to climb to the top of the new lace machines to adjust the jacquard with which they were completely familiar and to tighten or slacken when necessary the cords of the harness.

## APPENDIX 2

### The Lace Machine.

Machine-made lace was developed in Nottingham during the second half of the 18th century, following abortive attempts to discover a method by which hand-made lace could be copied on the stocking frame. These were made by stocking makers and framesmiths, but genuine lace could not be duplicated by the knitting process. The knitting frame could produce a transparent fabric in open-work mesh by a continuous linked thread (Figure 5, page 194), and the handloom could achieve a similar effect by crossed threads (Figure 1, page 181), but lace proper required a twisting of the threads by a mechanical process as in hand-made bobbin lace. Robert Frost in 1769 made the first simple patterned lace on a knitting frame and the first example of point net was produced by Thomas Taylor in 1778. These early products were fragile, easily unravelled if a thread broke and quickly lost shape. On the point net, figuring was added laboriously by hand by women lace runners forming needlework patterns.

Following this the next lace-type product achieved by mechanical means was warp knitting. Although similar to the ordinary knitting process, it no longer used one continuous thread. A vertical set of threads was combined by other threads controlled by rows of needles and surmounted the danger of unravelling should a break occur. The material could be cut to allow various openwork patterns as with sewed muslin. These warp-knitting frames were in use in Nottingham by the end of the 18th century and the tambour frame became a common feature in the houses of the city as in Ayrshire.<sup>(1)</sup>

Although warp net machines incorporated one of the main/

- (1) "W.S." 31st August, 1894. In Nottingham the women worked on point and warp net, while in Scotland the fabric used for needlework was the muslin goods from the handloom. The lace runners of Nottingham darned the figure through the mesh of the ground lace and the muslin embroiderers of Ayrshire filled the cut muslin with lace stitching.

main characteristics of lace, the crossing of a number of threads by other individual threads (Figure 6, page 194) they had not the capacity to twist the threads to resemble hand-made pillow lace. The breakthrough came in 1808 with a machine invented by John Heathcoat, a framesmith. The authentic lace appearance of Heathcoat's bobbin net machine was achieved after long study of hand lace workers. He noticed how they fixed their pattern to a pillow and inserted pins round which the bobbin passed, traversing and twisting to give a delicate openwork appearance, made secure by the twist and varied in pattern by the different traversing widths. He realized that some of the threads on the pillow could be imitated by a set of warp threads from a beam and that the traverse could be achieved by allowing the bobbins to pass through, across and round the warp. This was the basic idea behind his first machine and although only capable of a fabric 18" broad, it was the first genuine lace machine, adopting to its use the two essential features of hand-made lace. (Figure 7, page 196).

During the following year Heathcoat built his machine known as "Old Loughborough" which could make net of greater widths and he subsequently modified this patent to produce ornamented and figured lace. It was the proliferation of this machine which led to the rapid expansion of machine-made lace.<sup>(2)</sup> When the warp threads slackened as the net was taken from the frame it formed the characteristic hexagonal mesh of the type still produced on plain net and Levers machines.

The greatest disadvantage of Heathcoat's machine lay in its two tier system of bobbins, one tier above another. In 1813 John Levers, another framesmith, greatly improved this method by placing all the brass bobbins on one tier,<sup>(3)</sup> a change made by replacing Heathcoat's crude bobbins by fine ones half their thickness, each able to pass between the threads of the warp. This followed a decisive/

(2) Cuthbert, op.cit., p.10.

(3) Blackwoods Magazine. Vol.132, 1882, p.483.

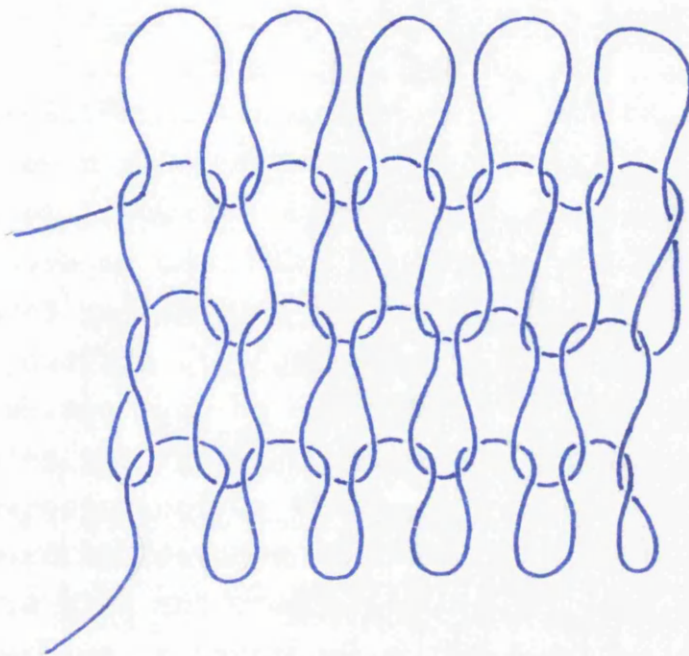


Figure 5. Knitted fabric: rows of loops made with one continuous thread.

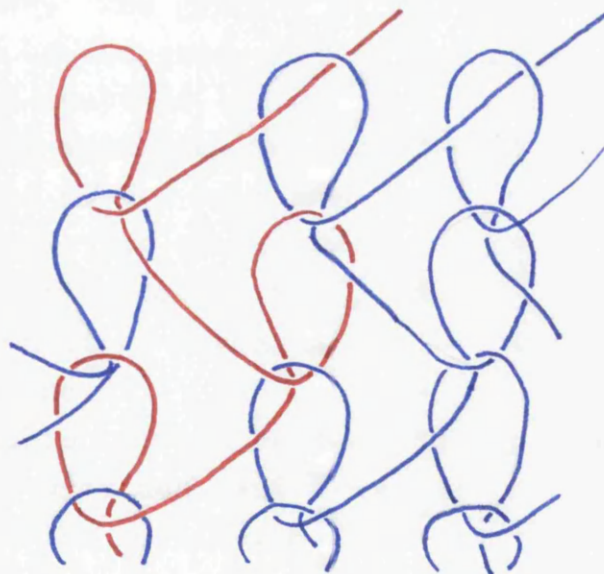


Figure 6. Warp net: interlocking loops with separate threads.

decisive step in technological progress in that greater delicacy of parts was achieved through advanced engineering and machinist skill. His invention cleared the way for making all types of fancy, figured lace and from then on only further refinements were necessary on lace machines.(Print 13 page 220).

These were made continually wider. By 1810 Heathcoat had produced one 54" wide and by 1835 machines 180" wide were in use. Levers' fancy lace could then be mass produced and the new wide machines under jacquard control made possible the development of broad, patterned lace furnishings such as curtains. In 1846 John Livesay patented the first curtain machine, the cloth of which is characterised by its square mesh. (Figure 8, page 196). The outstanding features of the modern furnishings machine are its size and complexity. The heavy framework of the machine is practically indestructable. It is the inside of the machine, the thread manipulating parts which require renewal and constant care and attention by the tenter if good cloth is to be made. The standard for measuring the size of the machine is by stating the length of the cloth-making part, which might be from 240" to 480". The quality of the lace made on these is determined by the gauge of the machine. Eight point means eight shuttles to the inch and also points, jacks, tricks, warp and spool threads to the inch; the rows of steel points at the back and front of each machine perform the twisting of the yarn. Sixteen points means sixteen shuttles to the inch. A 420", ten point machine, has 4,200 shuttles moving simultaneously along the length of the machine.

From this it will be seen that a four point machine will have a wide mesh and a twenty point a fine one. Yarn is fed into the machine, meeting at the lace making part from the warp beam at the base of the machine, from the shuttles in the heart and from the spool boards, set one above the other at the back (Prints 6 and 7, pages 216, 217). From fifteen feet to twenty feet above, controlling the threads/

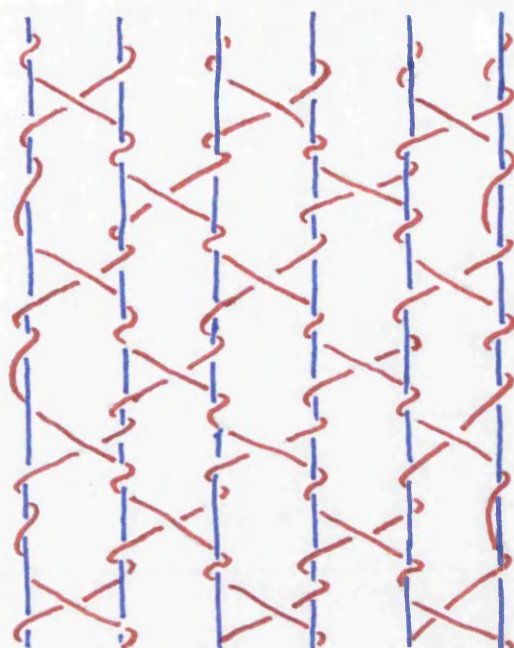


Figure 7. Bobbin net: the bobbins pass round the warp threads to produce the twist and the characteristic hexagonal holes in the net when taken from the machine.

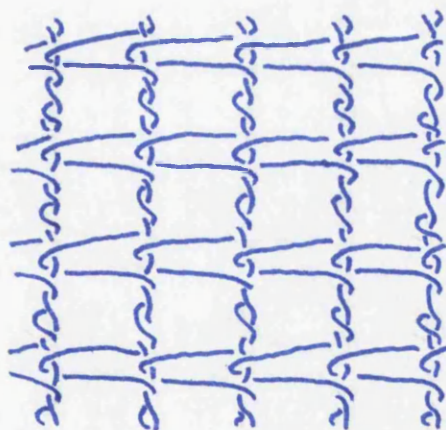


Figure 8. Curtain net: a square mesh with vertical twist.

threads which make the pattern, is the jacquard from which, spreading the full length of the machine are the jacquard strings. A 420" ten point machine when fully clothed, ready to go into production, can hold up to sixty eight million yards of yarn.

The quality of lace is decided by the number of complete motions made by the lace machine to make up three inches of lace. Cloth produced by a hundred motions will be finer and heavier than that made up of fifty. The standard is cloth of sixty quality and all others are determined in relation to it. A rack is 720 complete motions and provides the basis of piece-work payment. On a machine a rack of sixty quality lace measures one yard or one yard is 720 motions, therefore, three inches are completed by sixty motions. But there are also classes of work, and the rack rate had to take into account a variety of factors, the gauge and width of the machine, the number of guide bars working, the number of gaits (spaces) the guide bars move, and the number of threads in the machine and the kinds of yarn used - cotton, rayon, coloured, etc.<sup>(4)</sup>

The first lace machines erected in the Irvine Valley were narrow and had only one jacquard which made goods known as Single Action. By the end of the 19th century new machines operated with two jacquards which allowed a great variety of new effects in pattern and shading known as Double Action, where the shading is produced with two and four gait ties.

Following this came Double Spool as the number of spools on the machine was doubled. The goods made by this method were recognisable by their finer look, with the fine shading or two gait effect achieved through adding a set of fine spools to the set containing coarser yarn./

- (4) The first changes achieved in the appearance of lace from different shades of natural cotton came at the end of the 19th century when the bleachers introduced off-white colours of cream, ivory, biscuit and ecru.

yarn.

Filet Net is a type of Double Spool work distinguished by its network of squares which is not submerged by the clothing of the pattern. Finally there are the Combination goods with their rounder and wider holes created by the warp bar travelling three gait instead of the usual two, allowing the strong warp threads to drag the other yarns slightly out of position.

The manning of the lace machine differed in Scotland almost as soon as it was introduced from Nottingham. A factory culture developed vastly different from conditions and attitudes in England which cannot be fully ascribed to the Scots' view of their position in the system of production, seen from their generally held socialist standpoint. The twisthand in Nottingham moved in a world of his own filled by himself and his machine. The weaver in the Irvine Valley had others to assist him and where the twisthand was paid for his individual effort the Scottish weaver shared a combined pay with his "butty" on the other shift or with a number of others in the shed.

The different approach of the two lace districts was illustrated at a Joint Board Meeting between employers and operatives.<sup>(5)</sup>

Mr.A (Scottish Lace and Textile Workers Union) addressing the employers). We tell them [the weavers] they are not their machines, but yours.

Mr.B (Nottingham Employers' Association.)

You are inviting trouble in asking us in Nottingham to break away from the established rule. Some men would not like another man to go on their machine.

Mr.C (Nottingham Lacemakers' Society.)

It is not Mr.B's machine, it is ours. He bought it and we look after it very carefully.

(5) Manf.Ass.Mins. 23rd April, 1929.

The lace curtain machine still allowed the Irvine Valley weavers to maintain the dignity of their position at the loom and independence they had enjoyed in home manufacturers, without disrupting their co-operation and fellowship as a body, and the lace factories employing many from the same families similarly perpetuated the domestic atmosphere of work in earlier times.

APPENDIX 3

The Ayrshire Lace and Madras Companies. Location and Date of Establishment with Names and Original Occupations of the Partners.

| (1)<br><u>Name, Location<br/>and Foundation</u>                     | (2)<br><u>Partners and their<br/>Occupations</u>                                                                                                                                                  | (3)<br><u>Products</u>                                          | (4)<br><u>No. of Lace<br/>Machines</u> |
|---------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|----------------------------------------|
| 1. Hood, Morton<br>& Cleland.<br>Newmilns,<br>1864.                 | Joseph Hood, Jac-<br>:quard Manufact-<br>:urer.<br><br>Hugh Morton,<br>Weaving Agent.<br><br>James Cleland.<br>Weaving Agent.                                                                     | Wincey<br>Lace(1876)<br>Madras<br>Chenille<br>Tapestry          | 13                                     |
| 2. J. & J. Wilson.<br>Newmilns,<br>1870.                            | James Wilson,<br>Weaving Agent.<br><br>John Wilson,<br>Weaving Agent.                                                                                                                             | Muslin<br>Lace(1877)<br>Madras                                  | 12                                     |
| 3. Alexander<br>Morton & Co.<br>Darvel, 1875.                       | Alex. Morton,<br>Weaving Agent.<br><br>Robert Morton,<br>H/L Weaver.<br><br>Alex. Morton,<br>H/L Weaver.<br><br>Thomas Scade,<br>H/L Weaver.                                                      | Lace<br>Madras<br>Tapestry<br>Chenille<br>Silk Goods<br>Carpets | 42                                     |
| 4. Stirling<br>Brothers.<br>Darvel, 1877.                           | John Stirling,<br>Weaving Agent.<br><br>Wm. Stirling,<br>Dairyman.                                                                                                                                | Muslin<br>Lace                                                  | 11                                     |
| 5. Morton &<br>Cameron,<br>Newmilns, 1879.<br>(Wm. Morton<br>& Co.) | Wm. Morton,<br>Boot & Shoe Manu-<br>:facturer.<br><br>John Cameron,<br>Weaving Agent.<br><br>James Morton,<br>Warehouseman.<br><br>Andrew Smith, Baker.<br><br>Alex. McCulloch,<br>Seed Merchant. | Lappets<br>Lace                                                 | 15                                     |

| (1)                                                                             | (2)                                                                                                                                      | (3)                | (4) |
|---------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-----|
| 6. Stewart, Moir<br>& Muir.<br>Newmilns,<br>1880.                               | John Stewart,<br>Warehouseman.<br><br>Alex. Moir,<br>Warehouseman.<br><br>Robert Muir,<br>Warehouseman.                                  | Lace<br>Madras     | 19  |
| 7. Johnston,<br>Shields & Co.<br>Newmilns,<br>1880.                             | John Shields,<br>Warehouseman.<br><br>E.B. Steegman,<br>Yarn Merchant.                                                                   | Lace               | 12  |
| 8. J.M. Robertson<br>& Co.<br>Galston, 1880.                                    | James Robertson,<br>Weaving Agent.<br>John Robertson,<br>Warehouseman.<br><br>Chas. Robertson,<br>Weaving Agent.                         | Lace<br>Madras     | 12  |
| 9. Haddow, Aird<br>& Steel.<br>Newmilns,<br>1881.<br>(Haddow, Aird<br>& Crerar) | Robin Haddow,<br>Flesher.<br><br>Thomas Aird.<br>H/L Weaver.<br><br>James Crerar,<br>Lace Tenter.                                        | Lace               | 10  |
| 10. Peden, Young<br>& Reid.<br>Galston, 1881.<br>(Hendrie & Co.)                | And. Peden,<br>Weaving Agent.<br>Alex. Young,<br>Cardcutter.<br><br>John Reid,<br>Warehouseman.<br><br>Robert Hendrie,<br>Estate Factor. | Lace<br>Madras     | 16  |
| 11. A. & J. Muir.<br>Newmilns,<br>1881.                                         | Alan Muir,<br>Weaving Agent.<br><br>James Muir,<br>Weaving Agent.                                                                        | Lace               | 10  |
| 12. R. Muir & Son.<br>Newmilns,<br>1882.<br>(A. & J. Muir)                      | Robert Muir,<br>Warehouseman.                                                                                                            | Lace<br>Plain Net) | 11  |
| 13. David Ligat<br>& Sons.<br>Newmilns,<br>1885.                                | Robt. Ligat,<br>& David<br>Ligat, both<br>Lappet Manu-<br>:facturers.                                                                    | Lappet<br>Madras   | -   |

| (1)                                                                      | (2)                                                                                                                                       | (3)                       | (4) |
|--------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|-----|
| 14. Cleland,<br>Campbell &<br>Co.<br>Darvel, 1886.<br>(Cleland<br>Bros.) | James Cleland,<br>Weaving Agent.<br>Arch. Campbell,<br>Warehouseman.<br>Wm. Cleland,<br>Warehouseman.                                     | Lace                      | 7   |
| 15. John Fleming<br>& Co.<br>Kilmarnock,<br>1887.                        | John Fleming.<br>Weaving Agent.                                                                                                           | Lace                      | 10  |
| 16. Alexander<br>Jamieson<br>& Co.<br>Darvel, 1887.                      | Alex. Jamieson,<br>Warehouseman.                                                                                                          | Madras<br>Lace            | 18  |
| 17. Stevenson,<br>Young &<br>Anderson.<br>Darvel, 1895.                  | Robt. Stevenson,<br>Warehouseman.<br>James Young,<br>Lace Tenter.<br>Thos. Anderson,<br>Warehouseman.                                     | Lace                      | 10  |
| 18. John Aird<br>& Co.<br>Darvel,<br>1896.                               | John Aird,<br>H/L Weaver.<br>Wm. Wilson,<br>Lace Tenter.                                                                                  | Lace                      | 7   |
| 19. Goldie,<br>Steel & Co.<br>Newmilns,<br>1897.                         | Alex. Goldie,<br>Tailor.<br>Wm. Steel,<br>Lace Weaver.<br>Robt. Lennox,<br>Bank Clerk.                                                    | Lace<br>Madras            | 10  |
| 20. R. Forrest<br>& Co.<br>Stewarton,<br>1897.                           | Robt. Forrest,<br>Builder.                                                                                                                | Lace                      | 6   |
| 21. Henderson,<br>Morton &<br>Inglis.<br>Newmilns,<br>1898.              | John Gallo-<br>:way, Silk<br>Manufacturer.<br>John Henderson,<br>Warehouseman.<br>John Morton,<br>Lace Tenter.<br>James Inglis,<br>Clerk. | Lace<br>Embroid-<br>:ery. | 9   |

| (1)                                                                      | (2)                                                                                                        | (3)                        | (4)         |
|--------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|----------------------------|-------------|
| 22. Morton, Aird & Co.<br>Darvel, 1900.                                  | Andrew Morton,<br>Physician.<br><br>James Aird,<br>Lace Worker.<br><br>Arch. Morton,<br>Lace Tenter.       | Lace                       | 12          |
| 23. Blair, Smith & Cleland.<br>Darvel, 1900.                             | David Blair,<br>Madras Tenter.<br><br>Wm. Smith,<br>Tailor.<br><br>Gavin Cleland,<br>Madras Tenter.        | Madras                     | -           |
| 24. Morton, Young & Borland.<br>Newmilns, 1901.                          | Thos. Morton,<br>Madras Tenter.<br><br>Alex. Young,<br>Lace Weaver.<br><br>David Borland,<br>Sugar Broker. | Lace<br>Madras<br>Tapestry | 9           |
| 25. Young & Gebbie.<br>Darvel, 1903.                                     | James Young,<br>Lace Tenter.<br><br>Henry Gebbie,<br>Dairyman.                                             | Lace                       | 7           |
| 26. Morton Brothers.<br>Darvel, 1904.                                    | Wm. Morton,<br>Madras Manager.<br><br>Robt. Morton,<br>Designer.<br><br>David Morton,<br>Shader.           | Madras                     | -           |
| 27. Pollock & Co.<br>Newmilns, 1904.                                     | Thos. Pollock,<br>Weaving Agent.<br><br>Wm. Pollock,<br>Weaving Agent.                                     | Madras<br>Lace             | 6           |
| 28. M.S. Mitchell.<br>Darvel, 1905.                                      | M.S. Mitchell.<br>Designer.                                                                                | Lace                       | 11          |
| 29. Stirling, Auld & Co.<br>Darvel, 1907.                                | John Stirling,<br>Dairyman.<br><br>Robt. Auld,<br>Dairyman.                                                | Lace                       | 15          |
| 30. J. Cleland & Co.<br>Darvel, 1907.<br><br>(W.E. & F.<br>Dobson. 1914) | James Cleland,<br>Weaving Agent.                                                                           | Madras<br><br>(Lace)       | -<br><br>18 |

| (1)                                           | (2)                                                                                                     | (3)      | (4) |
|-----------------------------------------------|---------------------------------------------------------------------------------------------------------|----------|-----|
| 31. Morton & Loudon.<br>Newmilns,<br>1908.    | Archibald Morton,<br>Clerk.<br>George Loudon,<br>Designer.                                              | Madras   | -   |
| 32. Scade, Smith & Hamilton.<br>Darvel, 1911. | Thos. Scade,<br>Madras Tenter.<br>Alex. Smith,<br>Madras Worker.<br>John Hamilton,<br>Warehouseman.     | Lace     | 6   |
| 33. Lawson & Goldie.<br>Newmilns,<br>1912.    | John Lawson,<br>Lace Manager.<br>James Goldie.<br>Clerk.                                                | Lace     | 7   |
| 34. A. Goldie & Son.<br>Darvel, 1912.         | Alex. Goldie,<br>Tailor.                                                                                | Lace     | 6   |
| 35. James McInnis & Co.<br>Darvel, 1913.      | Jas. McInnis,<br>Lace Worker.                                                                           | Lace     | 10  |
| 36. Morton Sundour.<br>Darvel, 1914.          | Alex. Morton,<br>Weaving Agent.<br>Jas. Morton,<br>Tapestry Manager.<br>David Craig,<br>Carpet Manager. | Tapestry | -   |
| 37. J. Muir & Co.<br>Newmilns,<br>1915.       | James Muir,<br>Weaving Agent.                                                                           | Lace     | 10  |
| - - - - -                                     |                                                                                                         |          |     |
| 38. Yeudall & Co.<br>Galston, 1920.           | Abraham Yeudall,<br>Clerk.                                                                              | Lace     | 3   |
| 39. Smith & Archibald.<br>Darvel, 1923.       | Alex. Smith,<br>Madras Worker.<br>Wm. Archibald,<br>Lace Weaver.                                        | Lace     | 6   |
| 40. McInnis Textiles.<br>Darvel, 1925.        | Jas. McInnis,<br>Lace Worker.                                                                           | Lace     | 6   |

41./

|     | (1)                                        | (2)                                                         | (3)        | (4) |
|-----|--------------------------------------------|-------------------------------------------------------------|------------|-----|
| 41. | Smith &<br>Cleland.<br>Darvel, 1926.       | Thomas Smith,<br>Madras Tenter.<br>Andrew Cleland,<br>B.Sc. | Madras     | -   |
| 42. | R.McFarlane<br>& Co.<br>Newmilns,<br>1927. | R.McFarlane,<br>Lace Manager.                               | Braid Lace | -   |

- (1) The dates given in the first column are the dates when the companies introduced power-driven machinery. The number given to each company corresponds with the number indicating the location of the factory on Prints 15 and 16, pages 221, 222. The companies are under their original names, but where these changed before 1915 the later names are added in brackets. Numbers thirty-eight to forty-two are companies formed in the 1920s, while two others were established in Glasgow at the end of the 19th century: T.Birkin & Co. of Nottingham and Goodall & White.
- (2) The information in the second column was collected from numerous sources, chiefly from the Register of Sasines and the Valuation Rolls for the County of Ayr. The dates of foundation and names of the companies came from the same sources, and where partners in the original firms had only a fleeting or inconsequential connection they are omitted.
- (3) The list of products in the third column is not exhaustive. The original products are given, but some were taken up and then dropped. Only those goods manufactured over a long period are listed.
- (4) The number of lace machines cannot be absolutely accurate, for these changed regularly as old ones were replaced, new sheds built and sheds destroyed by fire rebuilt with a different complement. They give a maximum for the period when the numbers were relatively stable between the two World Wars.

GLOSSARY

- Beam: the net or cloth beam is the beam on which the woven fabric is wound. The warp beam holds the warp yarn.
- Beaming Machine: the machine used by the handloom weavers to wind on and align correctly the threads of their warp beams.
- Bobbin: the brass bobbin on the lace machine on which the 'weft' yarn is wound.
- Brown goods: woven cloth from the looms before it is dressed or dyed, also described as goods in the grey state.
- Carriage: the container of the brass bobbin. Both together are known as the shuttle in the Ayrshire machine-lace trade.
- Clipping: hand cutting with large shears of the loose or floated threads between the figuring on hand-woven goods.
- Comb: the curved channels in which the lace machine carriages move.
- Cropping: also described as clipping, is the removal by machine of the floated threads on woven fabrics previously done by hand.
- Draw-boy: male child of seven years and upwards employed to work the harness on the harness draw loom.
- Ferm-toun: a group of agricultural holdings, the tenants of which were involved in the run-rig system general throughout Scotland until the agricultural improvements in the 18th century.
- Gait: the space between the combs in which the carriage travels.
- Gauge: of the lace machine is measured by the number of points per inch.
- Gauze: a fine muslin very like lace net and the basis of the successful handloom industry of the Irvine Valley. By a system of half-heddles or 'doups' a twist was imparted to adjacent warp ends by crossing one over the other and fixing it with a weft pick.

Harness/

- Harness: the twines on the handloom which were manipulated by a draw-boy to determine which side of the shed the warp threads lie. It is also applied to the jacquard twines for thread selection on the handloom and power loom.
- Heckle: the method for separating the fibres of flax in the lint mills.
- Heddle: one of the shafts or leaves in the handloom moved by the treadles to open the shed.
- Heddle-in: to tie in a new warp in the handloom, bringing the warp ends through the heddle eyes on the heddles to the cloth beam. On complicated fabrics a mounter was engaged to introduce a new design, while a twister assisted at the installation of a new warp of the existing design.
- Jack: device on a jacquard operated lace machine for selecting a thread in the formation of the pattern.
- Leno: more specifically the type of gauze production in the muslin furnishings of the Irvine Valley, in which a plain pick alternates with a crossed pick.
- Lint mill: a mill driven by water power to produce lint from raw flax.
- Madras: a muslin of transparent ground, figured with a thick, soft weft. Normally this applied in the Irvine Valley to the muslin produced on the jacquard power loom with coloured weft threads, but could also produce white madras.
- Muslin: a fine cotton cloth, many varieties of which were woven in Newmilns, Darvel and Galston, one of the most common being Book Muslin with a characteristic hard finish.
- Needle: on the lace machine round which the mesh is twisted.
- Pick: or 'shot' is a single movement of the shuttle through the shed, leaving a weft thread to be beaten up to the cloth by the reed.

Pirn/

- Pirn: the bobbin of weft contained in the shuttle.
- Plaiding: an early development of plain weaving in striped and checked fabrics made from handspun wool.
- Point: round which lace mesh is formed, holding the yarn in position for the twist to be made.
- Quality: of lace on the curtain machine is decided by the number of motions of the machine required to make up three inches of lace. Sixty quality is the standard, in which sixty motions form three inches of lace.
- Rack: 720 motions of the lace machine. A rack of sixty quality from 720 motions would make one yard.
- Rack Rate: the raw measurement of piece-work payment, based on the rack.
- Ravel: open ended reed or comb used on the beaming machine, and the property of the weavers' associations, to guide the warp on to the beam to its full width and correct measurements between the threads.
- Reed: on the handloom guides the warp threads into the woven cloth at the right distance apart, and presses in the weft after each pick.
- Run-rig: system of agriculture in Scotland up to the time of the enclosures and the consolidation of farm-touns into single units. The principle feature was the intensive farming of the in-field by the various tenants and the common use of the out-field.
- Sewing frame: also known as the swivel, was an attachment to the handloom which gave the effect of sewed muslin by the insertion of extra weft from tiny shuttles.
- Shed: the opening in the warp threads made by the movement of the heddles.
- Shot: a single turn of the jacquard barrel or single passage of the shuttle through the shed, giving one weft pick.
- Tambouring: /

- Tambouring: hand figuring of muslin on a tambour frame in common use in first half of the 19th century for the production of flowered muslin and Ayrshire lace needlework.
- Tapestry: of the type produced on the power looms of the Irvine Valley was figured damask of cotton or a mixture of cotton and silk.
- Tenter: in the lace trade is a loom mechanic who generally had been a weaver with a superior knowledge of the lace and jacquard machines.
- Warping mill: a large vertical revolving frame introduced to prepare the weavers' warps once their complexity had gone beyond the capacity of the traditional method of preparing a warp at home by hand on the creel and bartrees.
- Web: handloom weavers called various items the web, the warp delivered in a clue for beam-:ing, the woven piece off the loom, and more aptly the yarn in the process of manufacture into cloth, spread out between the beams in the loom.
- Wincey: cloth of cotton warp and woollen weft or of cotton warp and linen weft.

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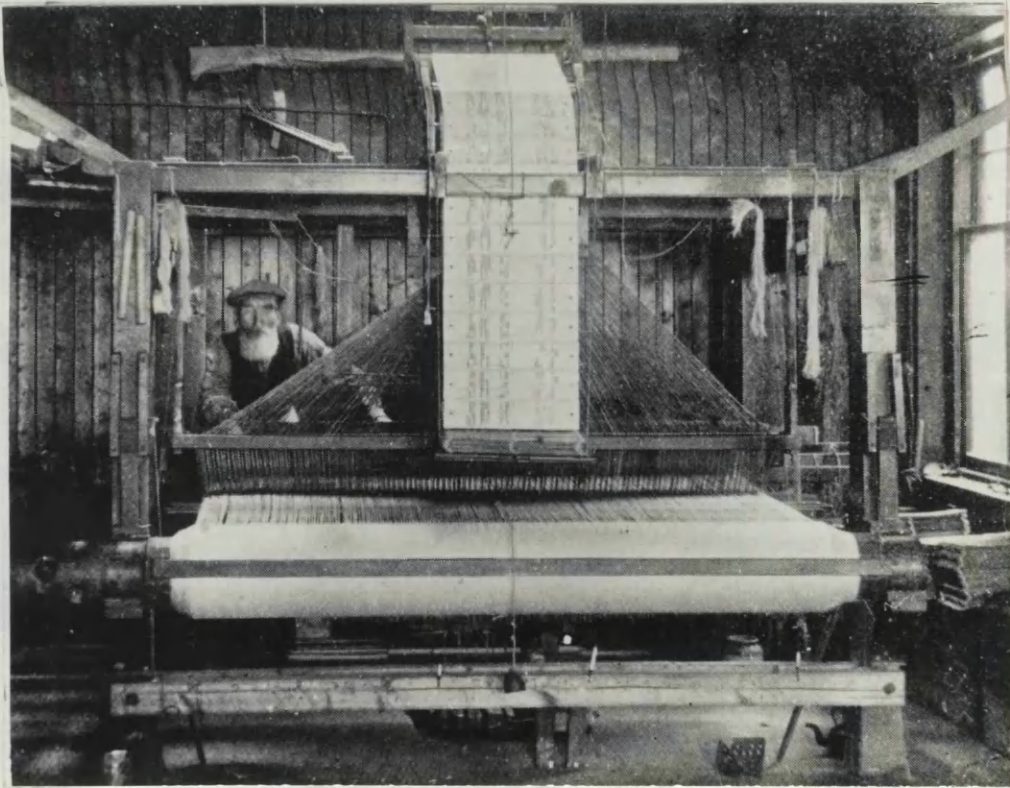
Photographic Prints



1.  
Plain Muslin  
with  
embroidered  
gauze stripe.



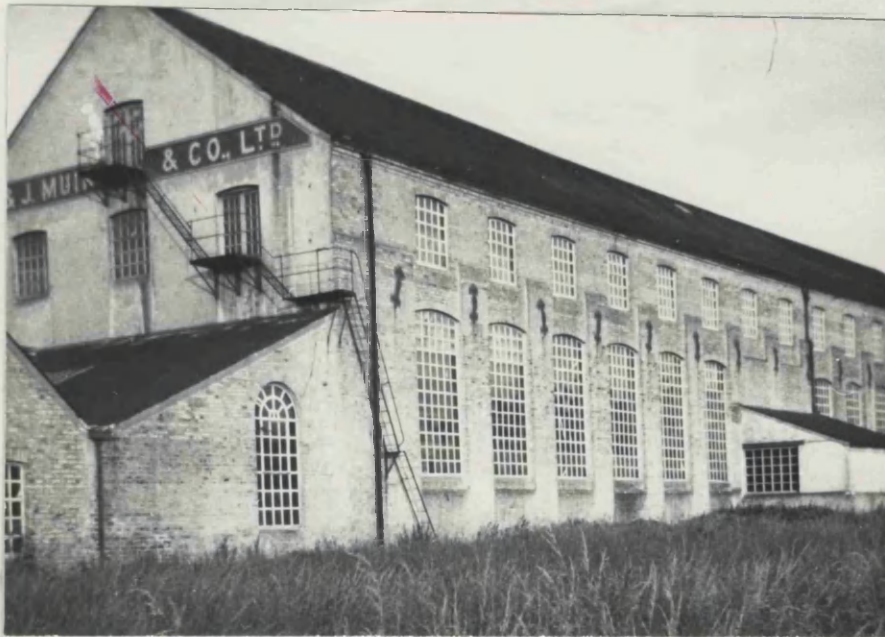
2.  
Ayrshire  
lace  
needlework.



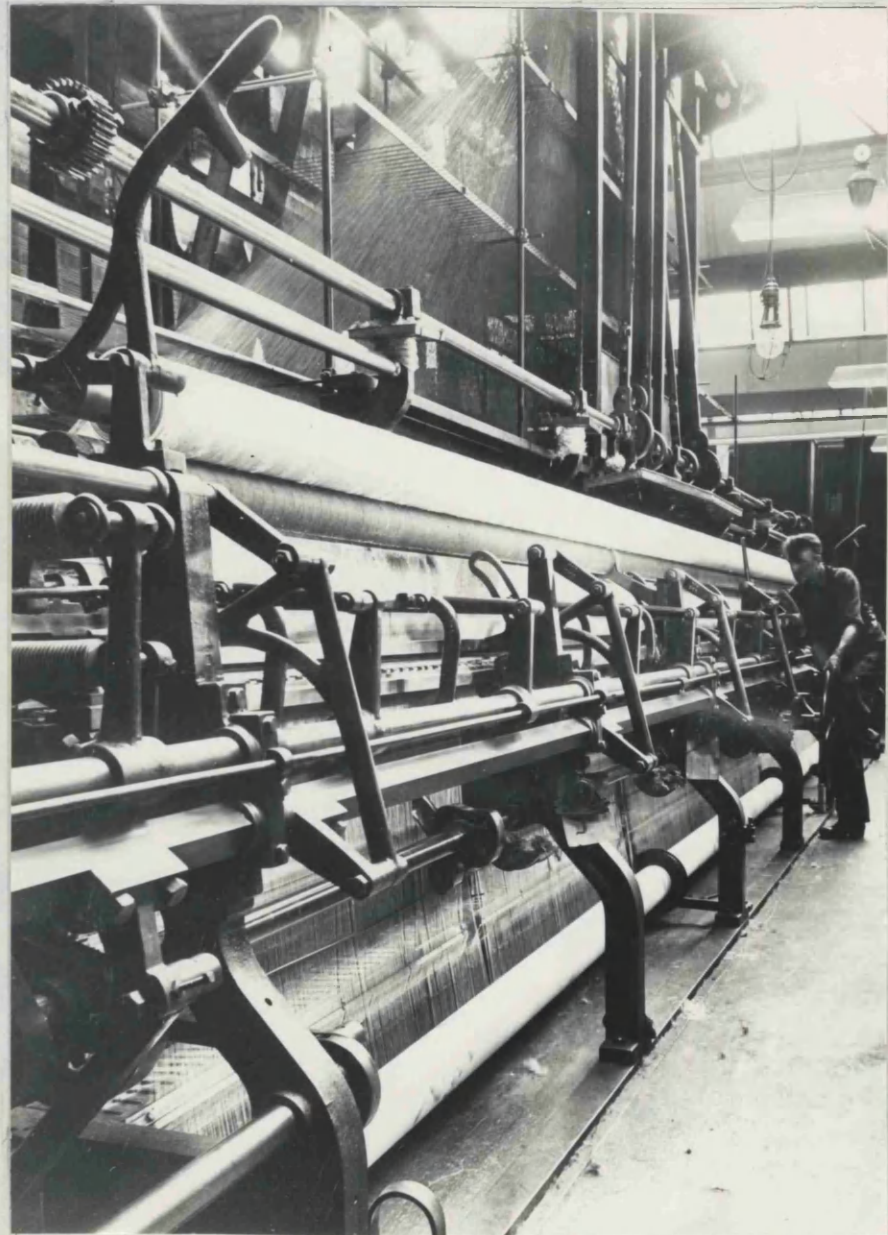
3. Jacquard handloom.



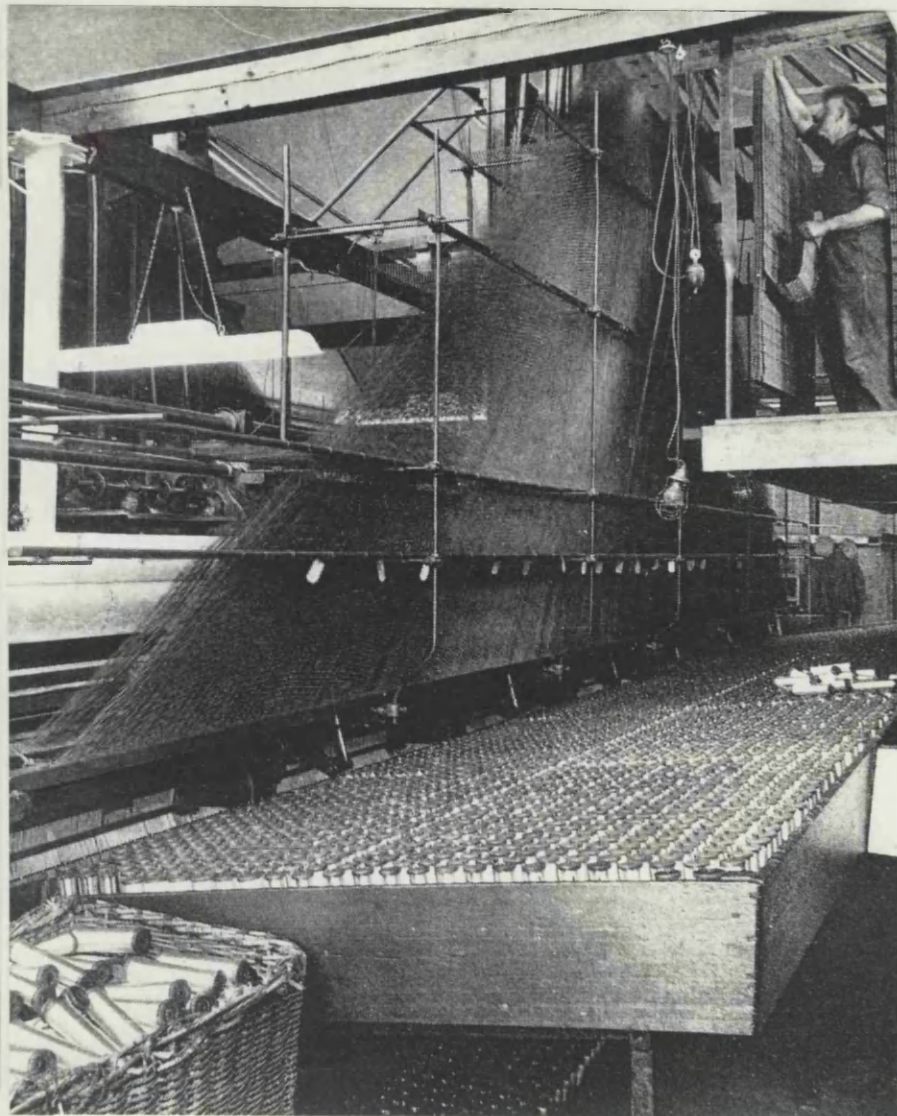
4.  
The old  
leno weave.



5.  
Lace Mill,  
Newmilns.



6.  
Lace  
Furnishing  
machine.  
(front)



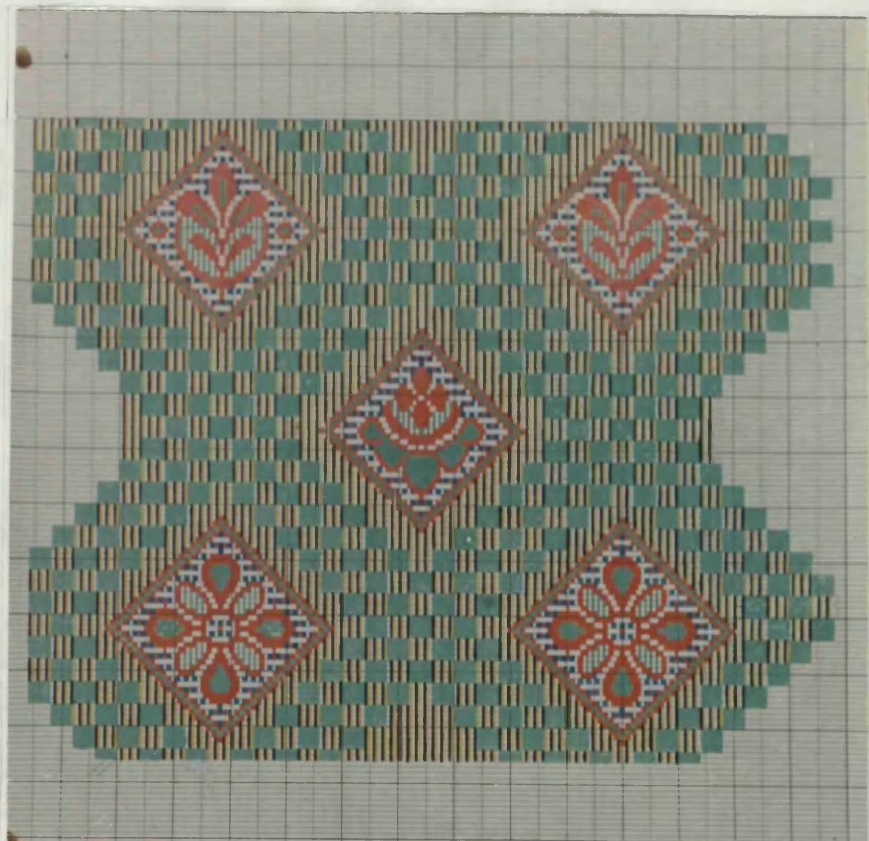
7.  
Lace  
Furnishing  
machine.  
(rear)



8.  
Cropping  
machine.



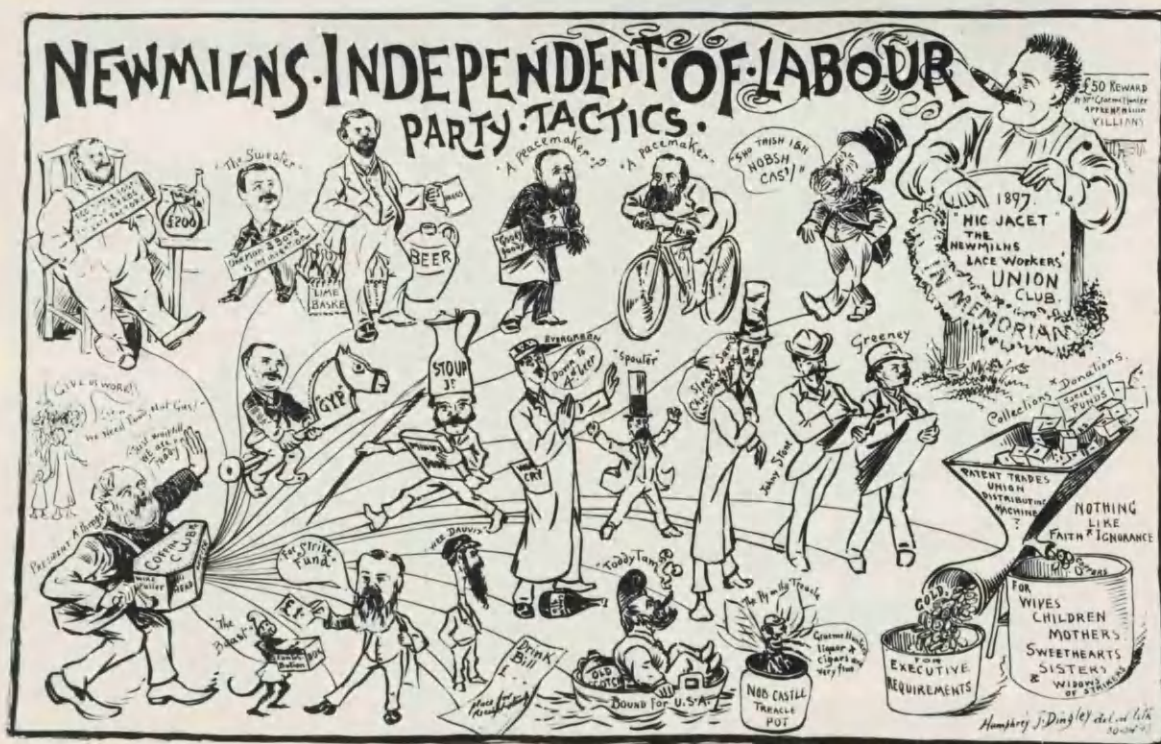
9.  
Rough sketch  
for lace  
design.



10.  
Lace design  
on point paper.  
(Developed  
from sketch in  
Print 9.)



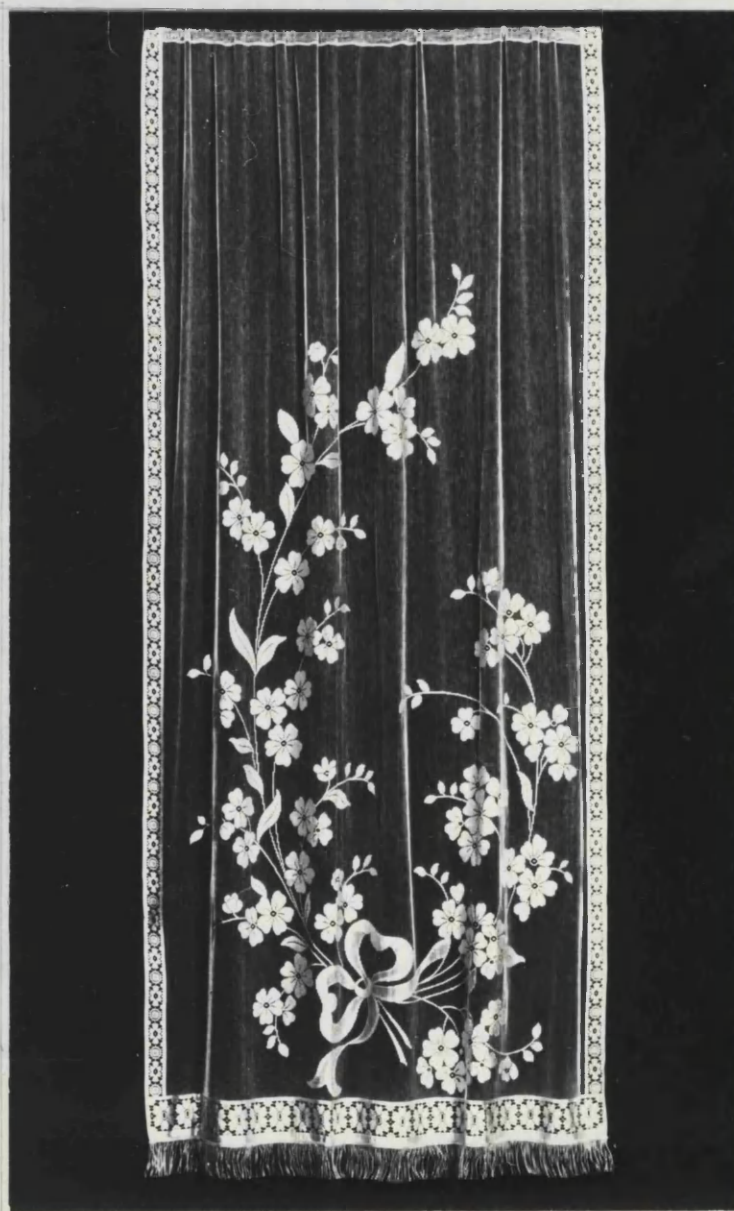
11.  
Piece of lace  
furnishing  
material.  
(Worked from  
the design in  
Print 10.)



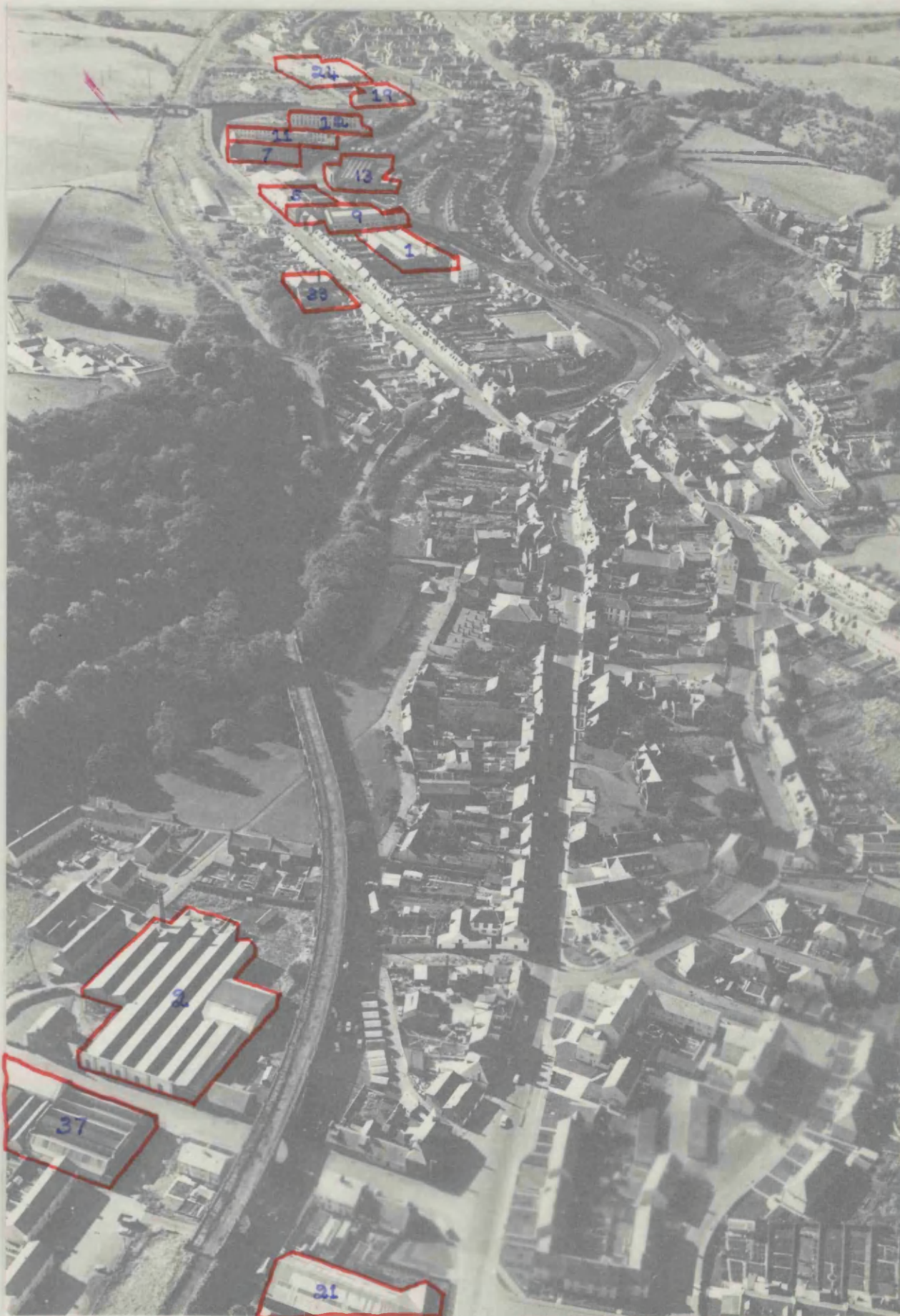
12. Cartoon of the Union leaders in the 1897 lock-out.



13.(above)  
Lace machine  
comb, carriage  
and bobbin.



14.(right)  
Lace store  
curtain.  
2½yds.by 47".



15. View of the Burgh of Newmilns.



15. View of the Burgh of Newmilns.



16. View of the Burgh of Darvel.



16. View of the Burgh of Darvel.