CHAPTER - I

THE DEVELOPMENT OF THE LOCK INDUSTRY IN ALIGARH
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In the developing economics, like ours, the role of cottage and small scale industries is aptly emphasised. The various official declarations and resolutions have spelled out the significance of these industries in the planned economic development of India. To quote a few it may not be out of place to mention the following.

The Industrial Policy Resolution 1948, stated that the "cottage and small scale industries have a very important role in the economy, offering, as they do, scope for industrial village and cooperative enterprise."¹ Later, the industrial policy resolution 1956, underlined the small role of small sector in India's economic development both "as ensuring more equitable distribution of national economy" and also as means of effective mobilization of "resources of capital and skill which might remain unutilised".²

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Similarly with the announcement of the new industrial policy of December 23, 1977, the small sector has assumed new dimensions. Emphasis has been placed on promotion of small scale cottage industries in rural areas and small town. To ensure speedier development of rural areas a "tiny" sector has been carved out of the small sector.¹ Again the industrial policy statement, 1980, "seeks to harmonize the growth in the small sector with that in the large and medium sector."² Consequently, the small sector has been assigned a significant role in the planning strategy which has resulted in rapid growth. In the wake of phenomenal expansion of small sector since independence. Lock Industry of Aligarh is also expected to play leading role in the growth of small sector in the Uttar Pradesh. Small scale industries have vital role in the economy of our country where labour is abundant and capital is scarce. Small scale industries have enabled millions of unemployed manpower to earn their livelihood and contribute to the economic, social and industrial development of the country.

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Infact, Aligarh Lock Industry has its origin in workshop established in 1860 for the Postal Department. Later on, a training school was established to train workers in lock-making. The liberal policy of the British Govt. to import locks led to the retrenchment of surplus workers in the workshop at Aligarh. Those retrenched workers took to lock-making in cottage units for the local market.

Superb workmanship, good quality and attractive designs made the Aligarh locks popular in the market. The lock industry, later on, became economically viable and competitive even in foreign markets.

Nevertheless, the disintegrated system of production and distribution is still its inherent weakness which cost the industry in terms of lack of modernisation and expansion. It has lost its competitiveness as it is evident from the popularity of products of new lock units in Punjab, Haryana, Delhi, Gujarat, Maharashtra and other regions.

Aligarh lock industry is labour intensive; there were 1.25 lakh workers (20486 according to Labour Office) and the industry added value of Rs. 58 crores in 1990-91.\(^1\) The

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1. Estimated by Author from Primary data collected through questionnaire appended to the thesis.
industry is important for the economy as it generates employment and adds to a value. The future of the industry is determined by the capital efficiency which is less than that of the other industries in town; the capital efficiency in the Aligarh lock industry stood at 1:4 in contrast with 1:12 for other industries.¹

The problem of capital efficiency is examined in subsequent chapter. The present chapter provides insight into the development problems for suggesting suitable measures to put to the Aligarh Lock Industry on sound footing again.

Locational Factors:

Aligarh emerged as the city of locks because of benefits of the following locational factors:

1. Climate
2. Skilled labour
3. Raw materials
4. Powers
5. Access to Market
6. State Assistance

Lock industry owes its growth in Aligarh to climate. Good health of workers is the attribute of good climate.

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1. Ibid.
Workers do not get tired of long hours of physical work. The high labour productivity is mainly accounted for by the good climate of the town.

Additionally, the workers acquired the skill of making locks in 1860 when the workshop was established to make metallic locks for the postal department. The cottage units became the training centres of workers in subsequent years. Over the period, lock making has become a traditional occupation of large section of the population of the town. The modern industrial units do not face the problem of trained and skilled labour supply.

However, the industry's main problem is the raw-materials. It is transported from distant places, viz., Jamshedpur, Calcutta, Delhi, Kanpur etc. The Government has issued licenses to large producers but the small artisan entrepreneurs who own cottage units and constitute over 50 per cent of the units of the industry do not have any licence to procure the raw-materials at controlled prices. They mainly get the supplies of the raw-materials from local traders at excessive prices. The unsatisfactory system of

1. Information gathered from District Industries Office in response to questionnaire, op.cit.
distribution of the raw-materials constitutes severe constraints on the growth of the Aligarh lock industry.

The cottage units of the industry mainly employ the labour intensive technique of production. Power is not the significant input in these units. The other part of the industry comprises the modern factories which employ the capital intensive techniques of production. Power is the significance input there. Optimum production in those units cannot be obtained without adequate and uninterrupted supply of power. There are 496 modern units in the lock industry in Aligarh which accounted for 50 per cent of the total output. In 1990-91 frequent power cuts were responsible for the loss of output equal to 20% of mandays. The request of the industry for more power was turned down by the U.P. State Electricity Board which needed power to emerges the tubewells, pumping sets, etc. in the rural areas. The industry is also put to losses from the damage to plant and machinery following steep fluctuations in the power supply. The industry has to carry out extra repairs of the plant and machinery.

It is fortunate that the town has access to the market all over the country. There are Grand Trunk Road and the Railway Junction. The town as the means of transport of goods to all part of the country. The private truck operator's
union, the sale tax, and the frequent hikes in transport rates are some of the major problems concerned with the distribution of the products of Aligarh Lock industry. The taxes and the freight together push up the cost which the Industry in unable to recoup due to stiff competition in the market.

The cottage units and the small units both deserve the state assistance in the procurement of finance, raw-materials and subsidies. The measures in the form of special agencies to assist the lock industry here would go a long way to rejuvenate and strengthen the marginal units.

Pattern of Growth Lock and other Manufacturing Units:

Likewise, the availability of all these facilities more specially the construction of industry or industrial estates one each at Aligarh in 1962-63, Hathras and Atrauli in the following years, and also the formation of the District Industries Centre at Aligarh in 1979, have been given a boost to the local cottage and small scale industries.¹

With the coming up of the above industrial estates and the D.I.C. more and more infrastructure facilities have been

¹. Information gathered by Research Scholar from Distt. Office, Aligarh by Mr. Masood Alam, Manager.
made available for the local industries. These facilities together with other favourable factors as discussed earlier in this chapter, have come a long way in the development of a huge complex of cottage, small scale and tiny industries in the District of Aligarh.

The small scale industries located in the Distt. of Aligarh can be classified into three broad categories viz., specially lock industry and Non-lock making industry. The metal industry largely comprises the agro-based and allied industries. Besides the spectacular progress made by the local metal industry as popularly known as the lock making industry a good number of small scale units dairy, edible oil, dal, sugar, cotton, textile, cotton, ginning, glasswares, readymade garments, chemical industry etc. have also emerged.

Thus, Aligarh Distt. has become a home of lock and others industries. However, a few large scale units namely the Glaxo Laboratories, Manzoorgarhi, Prag Ice & Oil Mills, Aligarh, Link Locks, Aligarh are private sectors units well the excepting of last three.

The overall growth of the registered Lock and other units Aligarh Distt., during the decade 1980-81 to 90-91 is presented in table No.1.1. The growth of the Lock Industry
does not match with that of the other industries. In the town other industries are expanding at phenomenal rate, as evident from the Table 1.1.

**TABLE NO. 1.1**

**SHOWING YEAR-WISE GROWTH OF REGISTERED LOCK AND OTHERS MANUFACTURING UNITS IN ALIGARH DISTT.**

<table>
<thead>
<tr>
<th>Year</th>
<th>New Lock Units Registered</th>
<th>Other Units Registered</th>
<th>Total</th>
<th>Decrease</th>
<th>Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980-81</td>
<td>46 (33.83%)</td>
<td>147 (76.17%)</td>
<td>193</td>
<td>100%</td>
<td>+</td>
</tr>
<tr>
<td>1981-82</td>
<td>38 (20.88%)</td>
<td>144 (79.12%)</td>
<td>182</td>
<td>100%</td>
<td>- 5.70</td>
</tr>
<tr>
<td>1982-83</td>
<td>30 (11.41%)</td>
<td>233 (88.49%)</td>
<td>263</td>
<td>100%</td>
<td>44.50</td>
</tr>
<tr>
<td>1983-84</td>
<td>49 (18.22%)</td>
<td>220 (81.78%)</td>
<td>269</td>
<td>100%</td>
<td>2.28</td>
</tr>
<tr>
<td>1984-85</td>
<td>73 (24.17%)</td>
<td>229 (75.83%)</td>
<td>302</td>
<td>100%</td>
<td>12.27%</td>
</tr>
<tr>
<td>1985-86</td>
<td>43 (12.72%)</td>
<td>295 (87.28%)</td>
<td>338</td>
<td>100%</td>
<td>11.92%</td>
</tr>
<tr>
<td>1986-87</td>
<td>25 (6.95%)</td>
<td>340 (93.15%)</td>
<td>365</td>
<td>100%</td>
<td>7.99</td>
</tr>
<tr>
<td>1987-88</td>
<td>29 (5.68%)</td>
<td>448 (94.32%)</td>
<td>475</td>
<td>100%</td>
<td>3.14</td>
</tr>
<tr>
<td>1988-89</td>
<td>55 (11.51%)</td>
<td>423 (88.49%)</td>
<td>478</td>
<td>100%</td>
<td>- .63</td>
</tr>
<tr>
<td>1989-90</td>
<td>38 (7.45%)</td>
<td>472 (92.55%)</td>
<td>510</td>
<td>100%</td>
<td>6.69</td>
</tr>
<tr>
<td>1990-91</td>
<td>58 (12.66%)</td>
<td>400 (87.34%)</td>
<td>458</td>
<td>100%</td>
<td>10.20</td>
</tr>
</tbody>
</table>

**SOURCE:** Information gathered by Research Scholar from D.I.C. Office, Aligarh 1990-91 (Upto Dec.)

Total Lock Manufacturing & other Units in Aligarh

The number of lock manufacturing units vis-a-vis other industrial units in the district corroborates the year after
year as earlier contention that Aligarh Industry's expansion lags far behind the other industrial unit in the district.

TABLE NO.1.2
SHOWING THE YEAR-WISE GROWTH OF REGISTERED TOTAL LOCK AND OTHERS MANUFACTURING UNITS IN ALIGARH DISTRICT SINCE 1980-81 TO 1990-91

<table>
<thead>
<tr>
<th>Year</th>
<th>Lock Manufacturing Units</th>
<th>Manufacturing Units</th>
<th>Cumulative Total Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980-81</td>
<td>124 (10.73%)</td>
<td>1032 (89.27%)</td>
<td>1156 100%</td>
</tr>
<tr>
<td>1981-82</td>
<td>170 (12.61%)</td>
<td>1178 (87.39%)</td>
<td>1348 100%</td>
</tr>
<tr>
<td>1982-83</td>
<td>208 (13.59%)</td>
<td>1332 (86.41%)</td>
<td>1530 100%</td>
</tr>
<tr>
<td>1983-84</td>
<td>238 (13.27%)</td>
<td>1555 (86.73%)</td>
<td>1793 100%</td>
</tr>
<tr>
<td>1984-85</td>
<td>287 (13.92%)</td>
<td>1775 (86.08%)</td>
<td>2062 100%</td>
</tr>
<tr>
<td>1985-86</td>
<td>293 (12.44%)</td>
<td>2052 (87.56%)</td>
<td>2355 100%</td>
</tr>
<tr>
<td>1986-87</td>
<td>318 (11.69%)</td>
<td>2402 (88.31%)</td>
<td>2720 100%</td>
</tr>
<tr>
<td>1987-88</td>
<td>345 (10.80%)</td>
<td>2850 (89.20%)</td>
<td>3195 100%</td>
</tr>
<tr>
<td>1988-89</td>
<td>400 (10.89%)</td>
<td>3273 (89.11%)</td>
<td>3673 100%</td>
</tr>
<tr>
<td>1989-90</td>
<td>438 (10.47%)</td>
<td>3745 (89.53%)</td>
<td>4183 100%</td>
</tr>
<tr>
<td>1990-91</td>
<td>496 (10.69%)</td>
<td>4145 (89.31%)</td>
<td>4641 100%</td>
</tr>
</tbody>
</table>


Development of Aligarh Lock Industry

Socio-politico-economic factors did have profound impact on the pattern of development of Aligach Lock Industry. The workshop for postal Department in 1860 led to
the birth of the lock industry in Aligarh. The workers who had received training in the workshop took to lock industry. They carried out improvements in designing and techniques. Soon Aligarh lock industry became economically viable and competitive in domestic market. Initially, there were 2000 workers in the whole industry. The growing demand for the products of the lock industry sustained its horizontal expansion. A number of successful enterprises were established during the first two decades of its existence. M/s Hiralal Jha, M/s Karim Elahi Bux, M/s Nabi Bux were among the forerunners in the lock industry. These firms offered attractive wages to the workers from the workshop of the postal department to take up the work in their enterprises. They blazed a trail of success for other entrepreneurs to join the industry, e.g., H.H. Johnson & Sons, Sparting & Sons, and others.

Aligarh lock industry received a shot in the arm during the world war I. There took place phenomenal growth in the industry. Investors received high rate of return on investment in the industry during the world War-I. It attracted additional capital for investment in new lock manufacturing units. The industry expanded manifold. Trading firms came into existence to handle distribution of locks throughout the country.
The profit was ploughed back in the enterprises to finance innovation and modernization. The galvanising technique was adopted in 1923 to make the locks look attractive. It was easy for the workers to learn and practice the galvanising technique.

The boom period did not last long; the lock industry was hard hit by the Great Depression of 1930. Plummecting prices during the depression brought disaster for the lock industry. The industry was saddled with large inventories, excessive wage bills and mounting debts. Many firms were wound up as a result of unbearable financial losses.

There ensued stiff competition at the end of the depression. The enlightened entrepreneurs in the lock industry visualised diversification as a panacea of their ills. The plan of diversification was supported by the government. It was necessary that the workers need be trained in the techniques of making new types of locks. The Government established the Metal Workshop School in Aligarh in 1935 for the training of workers. The Government provided foreign exchange for the modernisation of plants and machines. Machines were imported from Germany to make punch die locks. The industry made a successful bid to manufacture the suit-case locks which were hitherto imported.
Subsequently, the industry created additional capacity to expand production of punch die locks with indigenously forged devices for the domestic market. Semi-automation was also introduced in the industry when manual process was substituted by the mechanised process of polishing the finished products. The innovations brought down the cost, raised the labour productivity and profitability of the lock industry.

The World War II period, 1940, was characterised by global inflation and scarcity of industrial inputs. The Aligarh lock industry was beset with scarce supply of inputs. This led to formation of the Manufacturers' Association and the Traders Association to create healthy environment for mutual cooperation. The main objective of both the associations was to provide a forum to entrepreneurs for the pursuit of common production and distribution policies and to avoid wasteful competition. It was not the purpose of the associations to encourage monopolies in industry and trade. On the contrary, the association lent its helping hand to new entrepreneurs and promoted expansion in the production of locks as it is evident from the production worth Rs. 1.5 lakh in 1944-45.¹

The industry found it difficult to cope with ever increasing demand for locks during the World War II. It was not possible for the industry to instal additional capacity without capital, adequate supply of raw-material and trained workers. The price of brass scraps kept rising unabated during the war period. The price of the metal shot up from its pre-war level of Rs. 2/- a kilo to Rs. 150/- in 1944.\(^1\) The steep increase in cost and scarcity of raw-materials forced the industry in reduce the size of the output.

The immediate post-independence period was marked by social and political instability. There took place disinvestment in the industry for a brief period of four years, 1947-51.

The industry could resume its normal functions only in 1951 when it appeared safe to transport goods, employ workers, borrow capital and realise the credits.

The indifferent attitude of the state largely accounts for the stagnant position of investment in the Aligarh lock industry. The sales tax is particularly very heavy 4 per

\(^1\) Ibid., p.7.
cent advalorem\(^1\) --- and it has made the Aligarh locks
incompetitive. The raw-materials supplied by the state
agencies at controlled prices against licences are
sufficient to meet barely 40 per cent of the industry's
requirements.\(^2\) The industry largely depends on local traders
to fulfill the requirement for raw-material. The local traders
charge monopoly price which escalates cost of production of
the lock industry. On the contrary, the State Governments of
Haryana, Gujarat, Tamil Nadu and Panjab are looking after all
types of developmental problems of the industry, e.g., steady
supply of raw-materials, marketing, credit supply, tax
incentives, subsidies and other forms of assistance. As a
result, Aligarh lock industry has been losing market to
those new lock manufacturing enterprises.

- The sales tax procedure in U.P. State is difficult for
the artisan entrepreneurs to understand owing to illiteracy.
It is difficult even for the factories to account for each
stage of production which is divided into 15 - 25 parts.\(^3\) It
would do if the State government has accepted the demand of

\(^1\) Information given by field investigation Lock Industry of
Aligarh, in response to questionnaire, op.cit.

\(^2\) Ibid.

\(^3\) Information gathered from Manufacturers Association,
Aligarh, in response to Questionnaire, op.cit.
the industry to introduce the single point sales tax in place of the existing multi-point system.

The operation of the sales taxation system is arbitrary in the State as it is evident from the practice of realizing the tax revenue from small artisan entrepreneurs whose sales is far below the taxable limit; they are taxed on arbitrary basis since they are illiterate and cannot account for their sales. They suffer losses to the extent their income gets reduced after payment of sales tax. The State government should provide subsidies and other forms of incentives to cottage lock industry of Aligarh which can hardly survive the onslaughts of competition from modern lock manufacturing units in the town and outside.

The Government of India has specified the new limits of investment to redefine the categories of industries. It is permissible to invest Rs.75 lakh in ancillary industry, Rs.60 lakh in small industry and Rs.25 lakh in cottage industry and Rs.5 lakh in tiny sector\(^1\). The Aligarh lock industry’s investment averaged out at Rs. 5000 per worker\(^2\). It reveals a

\[\text{------------------------}\]
\[1. \text{Information elicited from field investigation lock in office, Aligarh response, industry of Aligarh to Questionnaire, op.cit.}\]
\[2. \text{Ibid.}\]
small capital based employed in the industry. It basically belongs to small and cottage sectors which deserve State patronage. There are 496 units registered with the State Directorate of Industries and 50 per cent of the lock manufacturing units are owned by small artisans. The industry largely employs manual process of production. It seems unrealistic to list the lock industry of Aligarh in the small scale category. It is pertinent to redefine the nature of the lock industry of Aligarh to list it in the category of Cottage Industry. Disincentive to entrepreneurial activities has been set off by the indifferent attitude of the State towards the Aligarh lock industry. Flight of capital to other forms of investment does not bid well for the lock industry in Aligarh.

Lack of interest on the part of the States government is also borne out by the State of affairs of state aided training institute which is not functioning. It exemplifies the utter neglect of training facilities to workers of the Aligarh lock industry. The red-tapism is responsible for non-implementation.

1. Information elicited from field investigation lock industry of Aligarh in response to questionnaire, op.cit.
The government’s own decision to scale down the sales tax to 3 per cent.¹ Tala Nagri (Lock City) project for establishing industrial estate exclusively for the lock industry has met the same fate at the hands of the State officials. The neglect of the industry by the state has culminated into the closure of 20 per cent of the cycle lock manufacturing units.²

The Aligarh lock Industry has strained every nerve to continue to retain its old position as one of the kingspin, in the economic development of the country. The Uttar Pradesh government introduced quality control measures in 1954. The lock industry of Aligarh accepted the norms and conformed its products to the specifications as it is evident from Table 1.3 below. The table furnishes information about the quality marked locks 1966-91.

It is discernible from the table that the number of firms under the quality control scheme has varied around 40 firms. The physical production of these firms touched the ever high at 1,202 thousand locks in 1968 and the lowest in

2. Ibid.
### TABLE 1.3

NUMBER OF FIRMS PRODUCING QUALITY MARKED LOCKS 1966-91

<table>
<thead>
<tr>
<th>Years</th>
<th>Firms</th>
<th>Quantity of Quality Locks (Rs. '000)</th>
<th>Value of Quality Marked Locks (Rs. '000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1966-67</td>
<td>43</td>
<td>100</td>
<td>420</td>
</tr>
<tr>
<td>1967-68</td>
<td>43</td>
<td>100</td>
<td>475</td>
</tr>
<tr>
<td>1968-69</td>
<td>43</td>
<td>1,202</td>
<td>600</td>
</tr>
<tr>
<td>1969-70</td>
<td>42</td>
<td>111</td>
<td>705</td>
</tr>
<tr>
<td>1970-71</td>
<td>40</td>
<td>118</td>
<td>802</td>
</tr>
<tr>
<td>1971-72</td>
<td>42</td>
<td>126</td>
<td>350</td>
</tr>
<tr>
<td>1983-84</td>
<td>41</td>
<td>69</td>
<td>104</td>
</tr>
<tr>
<td>1985-87</td>
<td>40</td>
<td>55</td>
<td>1,610</td>
</tr>
<tr>
<td>1987-88</td>
<td>40</td>
<td>79</td>
<td>2,113</td>
</tr>
<tr>
<td>1988-89</td>
<td>40</td>
<td>30</td>
<td>777</td>
</tr>
<tr>
<td>1989-90</td>
<td>40</td>
<td>50</td>
<td>1,535</td>
</tr>
<tr>
<td>1990-91</td>
<td>42</td>
<td>18</td>
<td>1,490</td>
</tr>
</tbody>
</table>

**NOTE:** The figure for year, 1990-91.

1988 at 30 thousand locks (estimated to produce 42 thousand by the end of 1990). The value added peaked (estimated at Rs. 1,000 thousand at constant growth rate) for the whole year.

It appears that the firms are increasingly opting out of the scheme due to lack of incentives from the State.
government. It would do well if the state government could have expedited the measures to ameliorate the problems of the lock industry which also occupied a place of pride as foreign exchange earner. The foreign exchange earned by the Aligarh lock industry during 1980-91 has been set out in Table No.1.4

<table>
<thead>
<tr>
<th>Years</th>
<th>Export</th>
<th>Increase</th>
<th>Decrease</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Export</td>
<td>Increase</td>
<td>Decrease</td>
<td>%increase</td>
</tr>
<tr>
<td>1980-81</td>
<td>68.29</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1981-82</td>
<td>72.00</td>
<td>+ 3.71</td>
<td>-</td>
<td>5.43</td>
</tr>
<tr>
<td>1982-83</td>
<td>65.00</td>
<td>-</td>
<td>-7</td>
<td>-</td>
</tr>
<tr>
<td>1983-84</td>
<td>58.00</td>
<td>-</td>
<td>-7</td>
<td>+</td>
</tr>
<tr>
<td>1984-85</td>
<td>59.00</td>
<td>+ 1</td>
<td>-</td>
<td>+ 1.69</td>
</tr>
<tr>
<td>1985-86</td>
<td>56.00</td>
<td>-</td>
<td>-3</td>
<td>-</td>
</tr>
<tr>
<td>1986-87</td>
<td>54.10</td>
<td>-</td>
<td>1.90</td>
<td>-</td>
</tr>
<tr>
<td>1987-88</td>
<td>53.10</td>
<td>-</td>
<td>-1</td>
<td>-</td>
</tr>
<tr>
<td>1988-89</td>
<td>50.00</td>
<td>-</td>
<td>3.10</td>
<td>-</td>
</tr>
<tr>
<td>1989-90</td>
<td>49.00</td>
<td>-</td>
<td>1.00</td>
<td>-</td>
</tr>
<tr>
<td>1990-91</td>
<td>45.30</td>
<td>-</td>
<td>3.7</td>
<td>-</td>
</tr>
</tbody>
</table>

SOURCE: Information gathered by research scholar from E.P.C. New Delhi (Data upto date 1990-September)
Data put forth in the above table reveal that there was export worth Rs. 68 lakh in 1980-81 which increased by 5.43% in 1981-82. The exports declined precipitately from Rs. 65 lakh in 1982-83 to Rs. 45.3 in 1990-91. An industry would not compete in foreign market without modernization and renovation. The industry does not have access to capital market to raise sufficient capital for financing modernization and renovation. The financial problem of the industry can be much eased if state guarantees payment of dividend or payment of interest and repayment of loan.

The Industry has been adversely effected by the problem of raw materials. Steady supply of raw-material is the main prerequisite for an industry's smooth working. Interrupted supply of raw-materials exposes the investors to greater risk. It forces the industry to operate below 'optimum level' and pushed up the cost of production. The industry's bid for downward adjustment between average cost of production and the price is rendered difficult by the sticky cost components; the wages, interest, rates, rent and insurance are sluggish to move downwards. It, as a consequence, leaves the industry a small profit margin. The industry seeks to overcome the problem of uncertain supply of raw-material by building up excessively large inventories of raw-materials. It involves substantial amount of working
capital. The inventories account for reduction in the return on investment which does not favourably correspond even to 'opportunity cost' in a number of cases.

The State licensing policy for procurement of raw-materials at controlled prices is not free from shortcomings. In the first instance, the policy falls short of meeting the requirement for raw-material fully; the licenses have been issued to 100 firms out of 3000 lock units in the town, that are mostly owned by the small artisan entrepreneurs. The small entrepreneurs get the supplies from traders at exorbitant prices. Generally, such units operate at break-even point and, have failed to generate surplus for growth. The commercial banks are hesitant to meet their short-term credit needs. Preoccupations of the commercial banks with safety, liquidity and return are main barriers between the artisans of small units and the bankers; they do not have access to the organized money market. The traders who extend credit to the artisan entrepreneurs have got the firm hold on the Lock Industry of Aligarh.

Power cuts add to the woes of the industry. It has hit the lock industry in terms of idle capacity and high cost of production. Though the Aligarh Lock Industry is largely labour-intensive, there are some mechanized processes of
production which cannot be performed without power, viz., polishing. Manual process of polishing is inefficient and costly. It, therefore, employs mechanized process of polishing.

The problems of the Lock Industry are compounded by hikes in power rates from 0.60 paise to Re. 1.25 paise during 1980 and 1988. Both the power cuts and the steep rise in power rates have escalated the cost of production. It is unlikely for the industry to raise price of its products in the midst of stiff competition from the rivals in other states. It accounts for the erosion of profitability of the Industry.

The marketing system of the Aligarh Lock Industry has its own shortcomings. The well organized firms have built up marketing system for distribution of their product direct to the consumers, particularly to the government and state agencies. They also have multiple shop system in metropolitan cities, viz., Bombay, Calcutta, Madras, and Delhi. The cost of sales is increasing both in absolute and relative terms. It can be reduced if the industry is able to raise its output.

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1. Information elicited from Management of P.P. Products, Aligarh, in response to Questionnaire, op.cit.
The unorganized sector of the Aligarh Lock Industry that comprises the small artisan entrepreneurs does not have any marketing system of its own. They work for the middlemen. They make locks to the order of the middlemen. The artisans are not in the strong bargaining position in regard to the price of their output. The bargaining strength is weakened by their total dependence on the middlemen for credit to buy raw-material and tools. The artisans have to sell their locks to the middlemen at un-remunerative prices. On the contrary, the middlemen sell the same outputs at high prices and appropriate to themselves the lion’s share of the revenue. The middlemen are also known to be selling the substandard locks without quality marking, though the U.P. State Government had introduced the scheme of quality marking in 1951 to safeguard the consumers’ interest on voluntary basis. The fraudulent practices of the middlemen can be checked if the scheme is made compulsory.

Inefficient organization and management of the Aligarh Lock Industry has much to account for low profitability. Its organizational structure is weak and unscientific. Two-third of the industry is composed of proprietary cottage units owned and managed by poor illiterate artisans. Such units are scattered all over the town. They operate with scanty capital base. In the absence of steady demand, the cottage units
manufacture locks for the middlemen. The artisan owners receive finance and raw-materials from the middlemen. The earnings from manufacturing operations are hardly sufficient to fulfil the basic needs of their families. The artisan owners have little surplus to meet working capital requirements.

The second largest segment of the Aligarh Lock Industry comprises partnership firms of different size. They operate with the capital contributed by partners. They hire workers, employ semi-automated process of production and supply output to a relatively wide market. Though the partnership firms enjoy definite advantages over the proprietary units, they do not admit of expansion because the partners are averse to risk. They pursue conservative policy which also explains the absence of leverage in the capital structure of the partnership firms. Private limited companies and the cooperative form of business organization are insignificant in the Aligarh Lock Industry. It is worth suggesting that the government should encourage development of the latter form of business in the Aligarh Lock Industry. It seems to be attainable if preference is given to private limited companies and cooperative form of business in providing facilities in the proposed talanagri, a version of industrial estate.
Financial constraints are the crux of the problems confronting the Aligarh Lock Industry. The industry has the need for long term and short term funds. The long term capital requirements are related to investments in building, plants and machines, fixtures and fittings, etc. The fixed assets of the industry have the book value of Rs. 135.3 crores.1 Additional investment of Rs. 600 crore will be required for modernization of the industry.2 The industry does not have surplus and reserves to finance modernization without borrowings. The commercial banks, financial institutions and the supportive government agencies are unwilling to commit funds to the projects of the Aligarh Lock Industry. It is suggested that a consortium of the commercial banks and other financial institutions can find ways and means for the industry to implement the projects for expansion and modernization. The funds to be provided to the Aligarh Lock Industry would go a long way to realizing the social objective of creating employment opportunities. The industry is labour-intensive since it creates more jobs per

1. Information elicited from Lock Manufacturer’s Association, Aligarh in response to Questionnaire, op.cit.
2. Ibid.
unit of capital invested than the medium and the large sector of industries. In other words, the technology is neutral to scale in the Aligarh Lock Industry.

The total requirement for funds should be estimated by taking into consideration the need for the working capital. The working capital far exceeds the fixed investments of the industry. The average size of the working capital relatively to the fixed capital stands at 3:1. There has been a perceptible rising trend in the working capital over a period of time. It is traceable to ever growing amount of inventories, book-debts and bill-receivable. Erratic supply of raw materials, power fluctuations and stiff competition account for the growth of the working capital. There has been negligible difference between the temporary and the permanent level of working capital. A few firms are able to partially fulfil the working capital requirements out of overdrafts and cash credits. The industry has largely to use its permanent capital to finance the working capital requirements. The burgeoning working capital does not portend well for the growth of the Aligarh Lock Industry. It tends

1. Estimated by author on the basis of information in response to Questionnaire, op.cit.
to depress the profitability of the industry. It calls for rationalizing the marketing and production process in a bid to reduce the operating cycle. To a level obtaining in the rival units of other states, e.g., inventories equal to a month's production, bills and book-debts equal to 2 per cent of sales to be realized within a month.¹ The study does not reveal any predetermined norms followed by the management of the Aligarh Lock Industry.

Financial problems of Aligarh Lock Industry have been compounded by the U.P. State Taxation Policy. Sales exceeding Rs. 12000 within the State is taxed at the rate of 6.6% and at 4% for sales outside the state.² Besides, surcharge at 1/2% is levied on the sales beyond Rs.2 lakh.³ Further, the effective tax rate is many time the original sales tax rate since each of the intermediate products is regarded as a final product for the sales tax purpose. There are fifteen different processes undertaken in separate and independent small units which are scattered all over the town. It is a

¹ Estimated by author on the basis of information in response to Questionnaire, op.cit.

² Information elicited from field investigation of Lock Industry of Aligarh, Questionnaire, op.cit.

³ Ibid.
sales transaction for sales tax purposes when they are handed over to units engaged in assembling the parts into a finished product. It is fair to estimate that the effective sales tax rate is 56% as a result of multiple sales taxation system. The sale tax in U.P. does not compare well with that practised in other states. Besides a low tax rate, the other states exempt the intermediate products of small units, and provides tax incentives for sales growth.

The small entrepreneurs, largely comprising the artisans, are illiterate and find it cumbersome to comply with taxation rules and regulations. They do not usually maintain proper books of accounts. The sales tax administration determines ad hoc tax liability. The small entrepreneurs, in the absence of tax planning, are put to great distress's they have to resort to distress sales for cash to meet the tax liability. As a consequence, they have to incur heavy losses.

The multiple sales taxation and the ad hoc approach of sales tax administration in the case of illiterate small entrepreneurs, in fact, account for much erosion of funds from operations. It weakens the resource position of Aligarh Lock Industry.
New units in the industry do not enjoy the sale tax incentives here as those in Gujarat, Tamil Nadu, Haryana and Punjab. The lock units outside U.P. enjoy a longer tax holiday period, viz., 5-years as compared with that of 3 years in U.P. The disperate taxation policy puts the new units on a losing ground in a keenly competitive market. It acts as a severe constraint on their efforts to break-even early.

It is traceable to inefficient production processes of production in Aligarh Lock Industry, ranging from inadequate supply of raw-materials to idle capacity. In 1990, locks worth Rs. 69.63 crores were manufactured by the Lock Industry. Production can be stepped up provided sufficient raw materials is available. Brass-and-iron-sheets are the main raw-materials in lock manufacturing which are largely procured from the local market at exorbitant price. It is suggested to widen and streamline the public distribution system of the iron and brass sheets for Aligarh Lock Industry.

1. Information gathered by the author from Distt. Industry Office, Aligarh in response to Questionnaire, op.cit.
2. Information elicited from Lock Manufacturer's Association, Aligarh in response to Questionnaire, op.cit.
Labour, together with raw-materials, constitutes major component of the cost. Most of the processes in lock making involve manual labour. It is difficult to standardize the product because locks are made to suit the requirements of suppliers and customers. Lack of standardization is largely responsible for poor quality control. The wastes also result in lock making due to manual process. It is suggested to establish research and development centre, for modernization of lock making techniques and standardization of the product.

As observed earlier, there are quite a few registered firms in Lock Industry at Aligarh. Legal formalities and delays in registration of new units discourage entrepreneurs to get their firms registered. On comparison it is found that most of the entrepreneurs in lock making units are illiterate and unacquainted with rules and regulation. The predominance of unregistered units add little to the value of the locks.

Relatively low value added by those units to the result of inefficient manual process in lock making due to small number of innovative entrepreneurs. High cost of production and lack of diversification both have contributed to dwindling productivity and substantial idle capacity.

Besides, inadequate availability of working capital has added to the woes of the industry. It has been observed in
the foregoing paragraphs that commercial banks are not willing to supply working capital due to poor recovery of loans from small units. It is suggested to set up specialized financial institutions to look after financial needs of small entrepreneurs in the lock industry.

The Aligarh Lock Industry problems also emanate from insufficient number of skilled workers through traditional system of on-the-job training. The Industrial Training Institute and the National Small Scale Corporation, Aligarh, have been training workers, but the training centres are ill-equipped to fulfil the demand of the industry for skilled hands. Unskilled workers come from nearby villages to work in lock factories daily. They are generally migratory labour force a factor underlying the indiscipline. Different channels of recruitment of labour are used in the industry. The method of recruitment through intermediaries is frequently used to employ the artisans. This system of hiring workers has been abused by agents in exploiting. It is worth dispensing with recruitment of workers through agents to eliminate exploitation.

For casual vacancies, direct method is used. Recruitment of relatives of workers and owners is the commerce practice in the industry. The favourites and
nepotism in harmful to the industry itself in the long run. Employment Exchange is not notified for listing workers of desired qualifications.

Though the workers of Aligarh have acquired proficiency they are adversely affected by such problems as hazardous, working conditions, including small space, unventilated rooms, smoke dust and dirt especially in polishing which afflicts the workers with tuberculosis. Health of workers is ruined by malnutrition.

Factory laws for safety are not followed by lock factories. Even basic amenities, like latrines, spittoons, canteens, etc, are not provided to workers. The workers in Aligarh Lock Industry do not have the benefit of free medical service. The low-paid cannot afford medical expenses in case of serious disease. Workers are thrown out of job when they are seriously afflicted with industrial disease. Lack of adequate medical care tells upon the health and efficiency of workers. In my opinion the state government should be strict in promoting social welfare of workers in Aligarh Lock Industry.

It is pathetic that workers here are overworked. They have to work longer than 8 hours at a strength. The workers have no provision to avail of paid holidays and leave in the
lock factories. The owners are able to deprive the workers of such benefits by hiring workers on temporary basis.

In lock industry, workers receive piece wage except the supervisory staff. The piece wage fails to guarantee stable income because it is not coupled with minimum wage. Earnings of workers are further reduced due to power breakdowns, shortage of raw materials and poor maintenance of machines. Though the Factory Act provides for minimum wage, its provisions are circumvented by means of forged wage bills.

The benefits of bonus and provident fund are not available to workers generally. As a consequence, the workers' future remain unprotected in the event of unforeseen circumstances. The remain poor and indebted and the survivors have no economic support in case of death of bread earner.

Apathy of employers is manifested by it is the direct attribute of sickness, disability and disenchantment. In view of the findings in the foregoing paragraph, welfare measures will go a long way in improving labour efficiency and industrial relations. In the absence of the welfare schemes, they are prove to go slow in work and lose loyalty and devotion.

The employers take labour for granted since they are not organized. The Chakoo-Tala Mazdoor Sangh is not effective
because of the worker's being largely temporary. The Union is quite incapable to redeem it failed to have any visible impact on workers condition its commitments to promote the worker's welfare.

Conclusion:

The Aligarh Lock Industry has completed two centuries of its existence. It came into existence as a result of the British Govt. initiator to establish a workshop and a training school for lock industry. The workers moving out of the workshop took to private lock manufacturing in the town on small scale. The two world wars provided impetus for the fast growth of the industry.

The early momentum for growth which the industry had received from the state has worn off due to indifferent attitude of the state towards its problems. On the contrary, the new lock enterprises in other states are receiving benefits of the state assistance. It has set off capital flight from the Aligarh Lock Industry. If the industry continues to be a victim of the State apathy, thousands of workers may face retrenchment. The industry contributes to the economic growth as a net foreign exchange earner. The state must expedite measures to ameliorate the problems of the Aligarh lock Industry.
The plight of the industry is highlighted by low return. Synoptic view of the return on investment reveals declining trend; the rate of return has fallen from 27% in 1977-78 to 20% in 1987-88, the cost of capital has shot up from 16% to 25% during the corresponding period. It accounts for erosion of capital base of the industry.

The question as to whether the Aligarh Lock Industry has been able to make efficient use of the resources is being examined in the forthcoming chapter on "Financial Performance of Lock Industry of Aligarh".