

CHAPTER V.

INDUSTRIES.

OLD TIME INDUSTRIES.

Walter Hamilton in his description of "Hindustan and the Adjacent Countries (1820)" mentioned about the celebrated tailors of Monghyr and that much of the army clothing was made there besides shoes, "both of native and European fashions". He further mentioned: "Here also, and at Boglipoor, are some workmen who make European furniture, palanquins, and carriages, and when furnished with sound materials, and well looked after, are really clever workmen. The blacksmiths occupy about 40 houses, and make goods after the European fashion very coarse when compared with English articles, but still useful and cheap as will be seen by the following prices, viz., double barrelled guns 32 rupees; rifles, 30; single barrelled fowling pieces, 18; muskets, 8; match-locks, 4; pistols, 10; double ditto, 30; table knives and forks per dozen, 6 rupees. The barrels of the fire-arms are made by twisting a rod round an iron spindle, and then hammering it together; the bore is afterwards polished and enlarged by borers of different sizes".

Dr. Francis Buchanan had travelled through Monghyr district during 1810-11. His Statistical Report on Bhagalpur district published more than a century later has valuable information regarding the occupations and industries of Monghyr district.

He mentions of manufacture of coarse soap, tallow candles, and torches of old rags formed into a roll. At Monghyr at that time much of the army clothing was made for which a large number of tailors were employed. He refers to the manufacture of coarse glass of which bracelets (*churi*) were made. Enamels of two types and mats of common reed or *Narkat*, which they split open and inter-weaved. The mat-makers of Gogri made also mats of the sacred grass called *kus*. There were makers of baskets. In the villages, the tanners formed a regular part of the village establishments. A class of them known as *Dabgur* made leather bags for holding juice of sugarcane, molasses, boiled butter and oil. Manufacture of fire-works, tobacco for the pipe, distillation of liquor, manufacture of oil and preparation of curds, boiled butter and cheese for the garrisons kept a large number of families busy. There were also confectioners, who prepared sweetmeats, including a preparation of intoxicating sweets from the juice of hemp-leaves.

The blacksmiths and carpenters were in great demand. They made agricultural implements and superior type of household furniture. Their manufactures were a great deal after the European fashion and sold well to passengers and in Calcutta. The articles chiefly made were chairs, stools, couches, bedsteads, tables, palanquins

and carriages. Monghyr town alone had about forty such workshops. Boat-building was also one of their line. There were good painters at Monghyr who would paint houses, boats, palanquins and carriages. There were some Goyalas (Goalas?) who processed a yellow paint from cattle-urine. There were turners who made various articles. Hair combs of *karam* wood were also made. Two kinds of water bottles used to be made. The potter of Monghyr would make his ware of a smooth black clay, which he found near Chandi-Sthan. Images from clay were also moulded. There were brickmakers too.

Due to the existence of several quarries, the stone-cutters and stone-workers were many. Plates, cups, mortars, weights, images of Siva and the stones of hand-mills were made from different types of stones and slates. Goldsmiths of Monghyr had a good reputation for their skill that compared well to that of the Calcutta goldsmiths.

In working of the iron mines and iron smelting the workmen did not possess much skill or knowledge. Iron from Kharakpur (Kharagpur?) was considered to be the best. Monghyr was a good market for iron because of gun-making establishments. Fire-arms, tea-kettles, sword blades or spears with gold or silver and gun barrels with gold or silver inlaid were manufactured. Dyeing of clothes with colours was a flourishing trade. The indigo works were judiciously constructed and all built of brick. Salt also was manufactured and the manufacturers were called *Nuniyas*.

As Francis Buchanan was widely mentioned by W. W. Hunter in his Statistical Account of Monghyr (1877), a mention here to Hunter is appropriate.

Hunter reiterated that the following industries existing in Francis Buchanan's time flourished at his time also. They comprised the manufacture of double-barrel guns, rifles, single-barrel fowling pieces, muskets, blunderbusses, ordinary match-locks, carved match-locks, single-barrel pistols, tea-kettles, fish-kettles, iron ovens, saucepans, frying-pans, chafing irons, chamber stoves or grates, kitchen stoves, ladles, ramrods, swords, spears, table knives and forks, scissors, lutes for bridles, stirrup irons, horse shoes and hob nails, spurs, hatchets, hoes, padlocks, chest locks and door locks, hinges, clamps for boat-building, nails for clinker-built boats, common nails, curry-combs, sickles without teeth, spades for cutting grass for horses, large sickles for cutting grass, sickles with teeth, palanquins, cast-iron furniture, corkscrews, razors, tongs, coarse needles and wheel spindles. Hunter also mentions the art of plating sword handles and other articles with gold and silver that was carried on during his time. About iron smelting process which was regarded as primitive he gives a detailed account. Hunter's omission of certain industries like boat-building, etc., should not lead us to think such industries had disappeared by Hunter's time. Boat-building or dairy products and particularly the making of fresh cheese did continue and have continued since.

Among minor industries, Hunter mentioned manufacture of soap from tallow and linseed oil and making of leather goods including foot-wear. *Tal* or palm and ebony were the principal source of ornamental woods. Water-bottles of clay or *surais* were made of very fine clay available near Chandi-Sthan and to colour them a red clay called *Gabi*, found near Sitakund was used. Stone and slate were cut and dressed, and it is also mentioned that a large number of *lingas* for the temples of Siva were made from the chlorite summits of the Monghyr hills. Slate quarries however did not return much profit.

Manufacture of colouring materials was also a flourishing trade. Varieties of colour dyes prepared from different materials were available. The *kusum* or safflower, *lahi*, or lac-dye, *simbrik* or sulphate of mercury or cinnabar, *haldi* or turmeric, *haritaki* (*Terminalia chebula*) and *kassis* were the sources from which colours were made. Cow-urine was also utilised to get an yellow-paint called *Peri* or *Piyuri*. Hunter mentioned about indigo which had become a major manufacture of this district by the second half of the nineteenth century.

It will be seen that most of the old time industries in Monghyr district pre-suppose a class of more cultured and economically well placed consumer. Monghyr from very early times has been the seat of this type of affluent families and the extensive river-borne trade that Monghyr enjoyed facilitated transport of the manufactured articles. Throughout the Muslim period and till the establishment of British rule Monghyr occupied a position of great strategic importance. The recent excavations at Naulakhgarh, Jaimangalgarh and other places show unmistakably that superb workmanship in stone, metals, etc., came from earlier times. Much of Monghyr's old time industries centered round delicate and superb craftsmanship, whether in the making of gold or silver inlaid guns and pistols, jewellery, stone images or furniture of high order. These major industries led to other minor industries like manufacture of paint, leather work, palanquins, argicultural implements, etc.

It will be relevant to quote, from the last *District Gazetteer of Monghyr* published in 1926—

- "The skill of the artizans of Monghyr and the excellence of their work have long had more than a local reputation. One of the earliest products of the district now extinct appears to be the black stone throne or *masnad* of the Nawab Nazims of Bengal, Bihar and Orissa, which bears on one of the 16 facets into which the rim is cut an inscription in Persian to the effect that 'this auspicious throne was made at Monghyr in Bihar by the humblest of slaves, Khaja Nagar of Bokharo, in 1052 Hijra', i.e., 1643 A. D. Later, in the eighteenth century, when Mir Kasim Ali made Monghyr his capital and set

up an arsenal there, the manufacture of iron-work appears to have flourished. Raymond (Mustapha Khan), the translator of the *Sair-ul-Mutakharin* (cir. 1786), indeed says: 'The European reader may possibly hear with surprise that the fire-locks manufactured at Monghyr proved better than the best Tower-proofs sent to India for the Company's use; and such was the opinion which the English officers gave when they made the comparison by order of the Council of Calcutta. The flints were all Rajmahal agates, and their metal more mellow'.

Mr. Twining, who visited Monghyr in 1794, when on his way up the Ganga with the Commander-in-Chief, Sir Ralph Abercromby, found much to admire in the iron ware of the Monghyr workmen. 'Iron ore', he says, 'is more precious than gold to the industrious inhabitants of Monghyr, sustaining, by its abundant and cheap supplies, an extensive manufactory of iron utensils of almost every description. A traveller from Europe is surprised to see presented to him for sale in the interior of India, knives and forks, saucepans, gridirons, and tea-kettles, which would not discredit an iron-monger's shop in London. But it is not the kitchen alone that Monghyr is able to supply, possessing an excellent fabrication of cabinet-ware, chairs, tables, sofas, cots, bed-steads, drawers, etc.—all made of a handsome black wood resembling ebony. The chairs and sofas, in particular, with cane bottoms, are extremely neat, and scarcely inferior to the European models after which they are made. The commerce of Monghyr in these articles is very extensive'. He also informs us that the mineral water obtained from the hot springs of Sitakund was in great request, its principal virtue being its purity and consequent wholesomeness, and also its property of remaining good for a great length of time in casks or bottles. For these reasons it is not only much drunk by the wealthier inhabitants of Monghyr, or such as can afford to send for it, but is often despatched to Calcutta for the use of persons about to undertake a long sea voyage. On these occasions it is either sent off in large jars, or in bottles filled at the spring. I was told that in the latter case it would preserve its tasteless purity for more than a twelve month. Recollecting, when I heard this, the offensive water of the ship on my way to India, I resolved, if it pleased God that I ever returned to

England, I would take with me a few dozens of the water of Sitakund'.*

From the journal of Bishop Heber, who visited Monghyr in 1824, we find that the industries of Monghyr were still flourishing. 'I was surprised', he wrote, 'at the neatness of the kettles, tea-trays, guns, pistols, toasting forks, cutlery and other things of the sort, which may be procured in this tiny Birmingham. The only thing which appears to be wanting to make their steel excellent is a better manner of smelting and a more liberal use of charcoal and the hammer. As it is, their guns are very apt to burst and their knives to break, precisely the faults which from want of capital beset the work of inferior artists in England. The extent, however, to which these people carry on their manufactures and the closeness with which they imitate English patterns show plainly how popular those patterns are'. The mineral water of Sitakund was still exported, some persons in Calcutta drinking nothing else, while muskets and pistols were made and sold at cheap prices, besides spears, which were ever cheaper, one of the best only costing Re. 1-4-0. The Bishop purchased a number of the latter for his servants, so that his cabin looked like 'a museum of Eastern weapons'. His narrative also introduces us to another industry which has now unfortunately disappeared, viz., the production of talc for use in windows, blocks of talc which divided easily into thin but tough laminæ as transparent as isinglass, being obtained from the Kharagpur hills. Thirty years before his visit this was the only approach to glass usually seen in windows of houses, even of those belonging to Europeans.†

Many of the industries mentioned by the early writers still survive and flourish; and to them have been added large and important industries, such as stone quarrying and the manufacture of locomotives at the great workshops of Jamalpur."

Indigo.

The following quotation from the last *District Gazetteer of Monghyr* (1926) gives the story briefly of how indigo flourished and declined in the district:—

"In Sir William Hunter's *Statistical Account of Bengal* (published in 1877) it is stated: 'The great European

* T. Twining—*Travels in India a hundred years ago*, 1893.

Sitakund water used to be bottled and sold in Calcutta forty years back. For this purpose the stream was bunded near by (Phillip-Kund) and this mineral water was held in great demand particularly among the foreigners. (P. C. R. C.)

† R. Heber, *Narrative of a journey through the Upper Provinces of India*, 1827.

industry connected with the preparation of indigo has now for a long time taken the first place amongst manufacturers in this district, and still holds that position. The area under indigo cultivation is estimated at 10,000 acres, and the outturn at 4,000 maunds or about 143 tons.' Sir William Hunter then proceeds to quote a return submitted by the officer incharge Begusarai subdivision, 'in which nearly all the chief factories are situated', which shows that in 1869 five concerns were at work, viz., Manjhaul, Begusarai, Bhagwanpur, Begamsarai and Daulatpur. These concerns cultivated 19,500 bighas, employed 6,400 to 8,400 hands and produced 1,590 maunds of indigo; but the outturn in that year was very much less than in average years. In an article on the 'Distribution of Indigo in Bengal' published in the Statistical Report of 1877 we find a fuller account of the industry, which is as follows:—

'Indigo cultivation in Monghyr is believed to be decreasing, and is now almost entirely confined to the tract of country lying north of the Ganges. On the south of the river there are only four factories—two European and two native—and their manufacture for some time past has been very inconsiderable. North of the Ganges eleven factories are at work—eight being under European, and three under Indian management. The area cultivated with indigo in the whole of the district may be stated as 15,000 acres, producing on an average 1,500 maunds of manufactured dye. It is said that $5\frac{1}{2}$ lakhs of rupees are yearly expended on indigo cultivation in the district. In Monghyr, as elsewhere indigo is grown on the best high lands that are available and the cultivation is unpopular with the raiyats, as displacing their most profitable crops. The zamindars, however, are favourably inclined towards the planters, who pay a high rent for indigo lands; while the low, landless castes, such as Mushahars, Doms and Dosadhs, get better wages for work on indigo cultivation and manufacture than they could hope for in other lines.'

Even as late as 1901-2 there were the following factories and outworks: (1) Begamsarai, with outworks at Teghra, Barauni, Nawada and Jhamtia; (2) Bhagwanpur, having outworks at Agapur, Surajpura and Kirtaul; (3) Harrakh, with outworks at Masnadpur, Mahna, Dhabauli and Mati Hasir; (4) Manjhaul, with outworks at Bishunpur, Birpur and Garhpura; (5) Sisauni,

with outworks at Bandwar, Gamharia and Kamalpur; (6) Nayagaon and (7) Sadanandpur, with outworks at Hitanpur and Samastipur. There were also four outworks of factories in Darbhanga, viz., Meghaul and Ramnagar, outworks at Daulatpur; Malipur, an outwork of Mangalgarh; and Gobindpur, an outwork of Dalsinghsarai. Even at the short time which has since elapsed, the above list is mainly interesting from the point of view of a local historian. The number of ruined factory buildings which one sees in North Monghyr is a melancholy sight. The industry is declining owing to adverse seasons and the competition of the artificial product. Most of the planters have disappeared, and those left are taking up zamindari and the cultivation of country crops as well as indigo.

The following table shows the factories now working. The two factories in the Monghyr subdivision are both in thana Kharagpur :—

Subdivision.	Factory.	Outwork.
Begusarai ..	Daulatpur ..	..
	Manjaul ..	Bandwar.
		Bishunpur
		Gamharia.
		Garhpura.
		Sisauni.
Monghyr ..	Digaon ..	..
	Sangrampur "

The process of disintegration of indigo cultivation and manufacture as a major occupation in the district that had started much earlier and has been referred to in the quotations above has now been completed since at least two or three decades. There is no indigo cultivation or manufacture now. The synthetic dye made the cultivation and manufacture of indigo rather uneconomic. The planters had added to their troubles by leaving the indigo *ryots*, more or less to their *amlas* or subordinates who usually maltreated the tenants. The tenants on their hand found indigo cultivation irksome and uneconomic. Mahatma Gandhi had come to Champaran in 1917 to enquire into the grievances of the indigo *ryots* against the European planters. His enquiry was followed by wide agitations and the passing of an Act which did away with most of the inequities the indigo *ryots* were suffering from. This was practically the death knell of indigo cultivation and indigo planters. The planters started liquidating themselves and became gentlemen farmers. Most of them sold away their concerns which were purchased by local people

or the zamindars. The remnants of indigo cultivation could still be seen in the neglected and dilapidated indigo vats in many of the concerns scattered throughout the district. Another remnant is the lingering one or two European families in Monghyr. An example could be seen in a number of houses within the fort compound which belong to the family of Mr. Dear. Mr. Dear also owned a number of such indigo concerns. He came to Monghyr to supply sleepers when the Railway was being extended and stayed behind. He had given the first endowment which started the Sadar Hospital at Monghyr. He presented to Monghyr town the Clock Tower over the Eastern Gate of the Fort which was demolished by the Earthquake in 1934. The family had agreed to put up the Clock Tower again but for some reason or other the offer has not yet been implemented. One of Dear's daughters was married to General Murray who was Duke of Athone. Murray gave up the title and preferred to live in Monghyr. All this is being mentioned to show the far reaching effects of the indigo planters. There is no doubt that the indigo industry played a great role in the economy of the district. Some of the descendants are still scattered in the district.

Among the other old industries that have declined but not died, mention may be made of the manufacture of gun.

The decline had set in because of superior steel and manufactured arms that were imported from abroad. Gun-making in Monghyr does not appear to have gone beyond the state of cottage industries viewed from the present standard. This industry has always been State-controlled in some shape or other. The requirements of guns earlier were necessarily much less and Monghyr gun-makers could supply only a moderate demand. But when the possession of a gun became a necessity not only for security purposes but also to indicate the status there was much more demand throughout the province and the supply could not have been met locally. The British administration brought in, as mentioned before, superior types of guns from abroad. Monghyr guns fell into disfavour and the price declined to an uneconomic level. Most of the gun-makers and their progeny went out accepting jobs at Ichapore Gun Factory and under the military. Then came the Second World War and there was a sudden spurt of demand. Monghyr guns were in short supply. In the forties a Monghyr gun fetched a black-market price of even 300 to 400 rupees. Strict administrative measures were clamped on and the produce was controlled. In the partition of 1947 many of the gun manufacturers who were mostly Muhammadans left for Pakistan. Now manufacture of guns in Monghyr is absolutely controlled by the State and an account is given elsewhere.

The decline of some other industries like the making of furniture, manufacture of leather goods, pottery, stone-images, etc., is due to the fact that other places have developed these industries. Many of the leather manufacturers have gone away to Calcutta, Kanpur

and Lucknow where there are better avenues of employment, either on their own or in the tanneries. The indigenous paint industry has had a decline but there has been a revival in another way by the manufacture of vermilion and other paints at Luckheesaraï. Making of cheese had a decline but owing to the availability of faster railway communication now, much of the cheese is sent out from Khagaria and Jamui area for Calcutta. This cheese cannot last and hence the necessity of quick transport. Manufacture of salt and saltpetre from saline soil has had a natural decline owing to availability of cheaper salt from elsewhere. The decline of river-borne trade has partially contributed to the decline of some of the old industries. It may be mentioned here that regular and daily steamer service to Buxar on one side and Calcutta through Goalundo which is now in Pakistan has been stopped by Indian General Steam Navigation Co., since three years back. Monghyr was an important station for them.

SOURCES OF POWER SUPPLY.

The industries that are run by power have either their own electricity plants or derive the power from the Electric Supply Companies or from the power generating stations maintained by the Government. The Railway Workshop at Jamalpur and the tobacco manufacturing factory of the Imperial Tobacco Company, Ltd., at Basudepur, Monghyr have their own generating plants.

INDUSTRIES AND MANUFACTURES OF THE DISTRICT.

The economy of Monghyr district is predominantly agricultural. According to the figures obtained at the census of 1951 barely 4 per cent of the population of the district are dependant for their means of livelihood upon production other than cultivation there being 21,133 self-supporting persons in the category having 84,412 dependants.

It is peculiar that, notwithstanding, the general development of the industry during the century, the proportion of the section of population dependant upon it has dwindled considerably. Thus whereas 13.6 per cent of the population were supported by industries in 1901, population being 20,68,804 the figures now stand at 4 per cent, population being 30 lacs approximately. This diminution in the percentage is largely attributable to the sustained decay of skilled craftsmanship and handicrafts caused by the disappearance of the section of people to which they catered, no less than by the free flow of the mass manufactured goods from abroad. The latter had a damaging effect on village and small-scale industries.

Some of the industries faced a gradually decaying demand due to slow disappearance of a particular class of people, i.e., the aristocratic families of Nawabs and rulers, moneyed and leisured classes who proved to be the most reliable patrons of industries in the height of their power during the fifteenth to eighteenth centuries. With

gradual decline of such families the patronage to many industries was also lost. In the first half of the eighteenth century we see the East India Company maintaining troops in the fort of Monghyr, towards the close of this century we find Monghyr as merely a station for half-pay and invalid officers and men, which all provide a proof for the ultimate annihilation of the one time booming industries the reminiscent of which we find in the notes by Miss Emily Eden in her "Up the country" when she came to Monghyr in 1837. She was much struck by the inlaid tables and boxes "and there were the prettiest dolls furniture possible, tables and cane chairs and sofas footstools of such curious workmanship". The existence of a leisured aristocracy with the strength of a long purse naturally encouraged delicate workmanship and finely executed furniture, fabrics, luxury goods, steel products, etc.

The skill of the artisans of Monghyr and the excellence of their work had earned for Monghyr the epithet of "Tiny Birmingham". The selection of the site for the Workshop of the Eastern Railway at Jamalpur was to some extent based upon the availability of skilled personnel in the area.

It is sad that the industrial economy was allowed to be shattered due to shrinking demand. The fine craftsmanship in steel, wood or gold is now practically lost and the consumption of foreign goods has gained ground.

Even now, however, the contribution of industries to the total annual income of the district (as grossly computed by the Director, Bureau of Economics and Statistics, Bihar) is considerably large, being to an extent of 9.85 crores or 19.6 per cent of the total as compared to 23.56 crores or 47 per cent of the total from agriculture, live-stock and forestry together.

There are two large-scale industries in the district, namely, the factory of the Cigarette Company and the Jamalpur Railway Workshop which may account partially for this contribution.

EXISTING INDUSTRIES.

The statement below gives a list of existing industries in the district :—

I. Major Industries—

(1) Engineering Workshop—1; (2) Cigarette Manufacturing—1.

II. Medium and Small-scale—

(1) Rice Mills—9; (2) Flour Mills—65; (3) Oil Mills—17; (4) Dal Mills—15; (5) Distillery—1; (6) Ice and Ice Cream—11; (7) Biri—15; (8) Housing—2; (9) Saw Mill and furniture Works—6; (10) Drugs and Pharmaceuticals—3; (11) Gun-making—23; (12) General Engineering—6; (13) Foundries—5; (14) Domestic Utensils

Making—7; (15) Trunk and Suit-case Making—7; (16) Agricultural Implements Making—3; (17) Bucket Making—1; (18) Mica—2; (19) Slate Stone—4; (20) Tiles Potteries—1; (21) Lime and Cement—1; (22) Vermilion and Colour Factories—2.

III. Cottage Industries—

- (1) Weaving; (2) Basket Making; (3) Rope and Mat Making; (4) Fire Works; (5) Paddy Husking; (6) Sabai Grass Rope Making; (7) Indigenous Tobacco (Chewing and Smoking); (8) Khand-sari; (9) Poultry Farming.

HEAVY INDUSTRIES AND MINING.

The Eastern Railway Workshop at Jamalpur has been established in 1862 for the repairs and construction of rolling stock and plant connected with the Railway. It is now one of the biggest Locomotive Repair Workshops in India. The constituent shops have since far outgrown their original size and have been remodelled to meet the modern need of an industrial concern.

The shops are at present spread over an area of 133.12 acres, properly fenced round, of which 35.70 acres are roofed over. There are altogether 28 constituent shops subdivided into three distinct categories to facilitate manufacture of component parts and quicker repairing of locomotives, viz. :—

Finishing Shops—11; Manufacturing Shops—14; Ancillary Shops—3 (Progress and Planning Sections including Government and Tin-plate Section).

In the Manufacturing Shops, two iron foundries and one brass white metal foundry cast all ferrous and non-ferrous engine components and other articles required for use by the railways; the most important of the ferrous materials cast are the D. O. plates and the Engine cylinders. Almost 90 per cent of the Eastern Railway's needs in respect of D. O. plates and almost 100 per cent needs in respect of cylinders of the Eastern and other railways are met by the materials fabricated in these shops.

In the Finishing Shops the different engine components fabricated in the manufacturing shops are properly machined and made ready for use. Besides these, materials required for consumption by other departments are also finished for use. The periodical and intermediate repairs of locomotives are also carried out by the Erecting and Boiler Shops. During 90 years of their eventful life, these constituent shops have treated all over-hauled approximately 30,000 engines for periodical hospitalisation with major ailments in their constituent set-up. The total number of engines treated for ailments through intermediate repairs during

the period is in the neighbourhood of 11,000. The cost of overhaul of engines is in the vicinity of Rs. 10 lacs a month. This is not a small achievement specially in view of the fact that this rate of outturn was uniformly maintained during the two most critical periods once in 1934 after the terrible Bihar Earthquake and the other in 1947 after the political upheaval resulting from the unfortunate partition of the country and the resultant interchange of staff, which meant some depletion of the technical staff. During the Second World War this factory was fully employed for manufacture of Ordnance articles. Approximately, 500 locomotives undergo repairs annually.

The Rolling Mill turns out re-rolled bars of different sections required for use in the workshop while the Bolt and Nut Shops turn out bolts and nuts required by the different departments of the railway. The casting and finishing of 65 tons annual block of the Chittaranjan Locomotive Works in the year 1951 in this workshop has been acclaimed to be a land-mark in the history of Indian Foundries casting heavy materials. The accent in the different sections has always been to modernise and catch up the latest results of research. At the present day cost, the total investment is of the order of Rs. 15 crores and the annual turnover is approximately Rs. 4.5 crores, of which Rs. 1.5 crores is the wage bill.

The motive power for running the entire series of component shops is supplied by the Railway's own Electrical Power House of the capacity of 8300 K. W. transmitted through 911 nos. of motors of 9,468 H. P. situated within the four walls of the workshops.

The average number of workmen employed is little over 14,000 including supervising and administrative staff. The wages paid to the manual workers vary from Rs. 35 to Rs. 130 a month excluding dearness allowance. The per capita earning of a worker in the year 1950 was over Rs. 96 per month including dearness allowance.

One of the important functions of this great workshop has been to turn out trained men of technical skill for various purposes and to suit different status. Apart from turning out a large number of men technically qualified for various branches of trades, the concern gives training to young men to hold responsible superior charges in the Railways, Steel Works and other concerns.

A fully equipped 120-bedded hospital including a modern X-ray plant is also maintained by the Railway at Jamalpur to cater for the needs of the staff. Besides these the majority of the supervising and administrative staff have been provided with Railway quarters while workmen have been provided with free transport from their house to the workshop. For this the Railways have provided special trains commonly known as Cooly Trains between Sultanganj in the east and Kajra in the west. The trains run very frequently and

the Railway workers use them for coming to Jamalpur and going back to their villages. There is a well-equipped canteen for the workers. The Jamalpur shops have been chosen for the manufacture of steam travelling cranes by the Railway Board for manufacture of two cranes per month beginning from October, 1961.

MICA MINES AND OTHER MINERALS.

The last *District Gazetteer of Monghyr* (1926) mentions as follows :—

“The south of the district contains part of the Bengal mica-producing area, which roughly coincides with a great belt of schists and associated gneissese granite some 12 miles broad and about 60 miles long, which stretches from Bendi in Hazaribagh district through the south-eastern corner of the Gaya district north-eastwards to near Nawadih (Jhajha) on the East Indian Railway in Monghyr. Here there are six mines at work, at Burhia, Mahgain, Srikrishna, Ganda, Sahaja Pubari, and Bhuklo in thana Jhajha, and at Bichway in thana Sikandra. The average yield during the five years ending in 1924-25 was about $9\frac{1}{2}$ tons, as compared with nearly $14\frac{1}{2}$ tons in the previous quinquennium, the decline being attributed chiefly to the product being outclassed by that of the Hazaribagh mines. In 1924 the outturn was 10 tons and the total number of employees was 315. The men employed are local residents who come daily from their homes in the adjoining villages. Wages range from 5 to 6 annas daily for men (averaging $5\frac{1}{2}$ annas), and are 3 to 4 annas for women and 2 annas a day for children. The largest mines are at Bhukle, where there are six excavations, varying in depth from 9 to 69 feet, and at Mahgain, where there are six excavations of 6 to 30 feet. The process of mining is of a primitive character. The mica is generally discovered at the exposed out crop of a pegmatite vein on a hill face and is followed from “book” to “book” by underhand stopping, which results in tortuous work like holes. The whole material extracted, consisting of mica, rubbish and underground water, is brought to the surface by a string of coolies working hand over hand on rudely constructed bamboo ladders.

There are some other mica mines not being worked at present which belong to the Maharaja of Gidhaur. These are to be found in mauza Bihar. Not far from the slate quarries of Dharahara is a hill of quartzose granite or mile stone grit, the stone extracted from which is utilised for grindstones. Lime is also exported from

Monghyr* in considerable quantities. The coarsest kind is made from *kankar* or nodular lime stone, which appears to have been washed from the lime stone formations of the Himalayas and deposited all over Bihar during the oscillation of the rivers by which it is traversed. The stone is burnt in kilns in order to expel the carbolic acid gas, and the residue is collected and sold at a low price. The best lime, however, is made from the shells of fresh water molluscs, which are found in great abundance in the marshes”.

The present state of mica industry in Monghyr is not very bright. It may be mentioned here that Hazaribagh district which produces the bulk of mica in India is also not faring well. There are several reasons for the decline. Several other countries abroad have started exploiting their mica resources. Mica has very little consumption within India and the bulk of mica produce in India has got to be exported. Indian mica industry earned some notoriety during the month of stock piling of the mica by countries abroad when Korea War broke out. Indifferent quality mica had been exported. Years after when the exported mica was sought to be used this fact came out. Naturally there has been an allergy abroad against the use of Indian mica. There is also a considerable waste owing to the employment of crude methods.

SLATE QUARRIES INDUSTRY.

The last *District Gazetteer of Monghyr*, 1926 has the following :—

“The following account of the slate quarries of Monghyr is given by Prof. V. Ball in the *Economic Geology of India*: ‘In the transition rocks of the Kharagpur Hills there is a band of slates from 6 to 12 feet thick which is traceable for many miles on the northern margin of the hills between Rishikund on the east and the Gaura and Amrasani *kols* on the west. Being for the most part vertical, it can only be worked by steps on the side of the hills, or by actual mines. For many centuries this slate has been worked by the natives more after the fashion ordinarily practised with reference to veins of metallic ore than to deposit of slate; the petty mines and quarries serve to produce an amount of slate which is equal to the demand, but the cost is certainly high. Its chief employment is for roofing instead of tiles, and a large quantity is so used at Monghyr and the neighbouring town; curry platters, etc., are also made from this stone to some extent’. This account was written many years ago before the quarries were developed.

There are now six slate quarries in the Kharagpur Hills, at Maruk, Sukhal, Tikai, Garia, Amrasani and Sitakobar. These quarries have been worked since 1864 by Messrs. Ambler & Company, who purchased the Basauni Indigo Factory from the late Mr. Deare and converted it into a slate factory. The stone quarried is a slightly metamorphosed phyllite which gives excellent roofing slates, and also produces fine slabs which are extensively used for electrical purposes. The slabs after being sawn and polished are black enamelled, and are made up into switch boards fuse bases, and knife switches. In 1914 the Company began to manufacture school slates, which are prepared in a fully equipped workshop where the slates are polished and fitted with wooden frames. The out-put fluctuates, the average outturn during the last five years was 2,554 tons of roofing slates, and 156,988 school slates. The labour force employed in 1924 was 300 below ground and 107 above ground. Wages range from 4 to 10 annas a day; but many labourers on piece-work earn from a rupee to Rs. 1-8-0 a day. In 1913 the concern was formed into a limited liability company under the name of Ambler's Slate and Stone Company, Limited."

Now-a-days, Bariarpur and Dharhara are the two centres for this industry. There are a number of slate quarries in the Kharagpur hills near Dharhara railway station situated at villages Maruk, Sukhaul, Taikai, Goria and Amrasani. There are a number of contractors who take the hillocks on lease. Dynamite is used to blow off the hillocks. The pieces are soft when blown off. They are brought to size with the help of instruments. The slates are generally used for roofing in places of tiles. Of course some quantity of slates are polished and are made suitable for being used by the children for writing. Times have changed and people are not inclined to use slates for roofing. And as such this industry is on a decline.

At present there are two tiles-manufacturing firms, viz., Messrs. Bajrang Lall Nirmal Kumar Tiles Factory and Messrs. Rajamjai Rai Onkarmal Tiles Manufacturing Factory at Jhajha. The former is working well while the latter is lying closed. They manufacture flat bricks, lock bricks and roofing tiles. Messrs. Bajrang Lall Nirmal Kumar Tiles Factory have three kilns each having a column of 5,000 cubic feet. Five hundred and fifty tiles and 2,20,000 bricks can be burnt in each kiln. The tiles manufactured by this firm are in great demand in Ondal, Asansol and in the local markets.

A capital of about Rs. 60,000 has been invested in this industry.

TOBACCO MANUFACTURING INDUSTRY.

In the year 1907 the Peninsular Tobacco Co., Ltd., selected Monghyr as a site to build a factory for the manufacture of cigarettes and smoking tobacco. The factory was built on the river Ganga at Basdeopur, $1\frac{1}{2}$ miles from Monghyr station. The site was obviously selected with an eye to the river which was a great means of transport. It commenced manufacturing operations in the year 1908. In 1925 a printing factory was also set up for the printing of all materials used in connection with the tobacco industry. In addition to these a large saw mill has also been erected which fabricates all types of packing cases from the log to the finished articles.

The factories are equipped with a large power house for generating electricity but it is proposed eventually to obtain full power requirements from the Damodar Valley Corporation.

In 1934 considerable damage was suffered in the Great Bihar Earthquake as a result of which the factories were re-designed. The Cigarette Factory is equipped with modern and up-to-date machinery. One Cigarette Making Machine of the type in use is capable of producing up to 1,300 cigarettes per minute. The total strength of the workmen employed is approximately 2,500 (monthly as well as daily rated).

During the Second World War owing to orders of the Defence Forces, the Factories were worked on full double shifts. The cessation of these large orders, followed by the loss of the East Pakistan market as a result of Partition led to reduced requirements from the Factories and reversion to single shift working. During the year 1960 the Factories commenced partial double shift operation.

The following are some of the amenities in existence for the workers at the Monghyr factories :—

- (1) a fully equipped Labour Welfare Institute complete with stage, furniture, fans and cinema projector;
- (2) a large canteen with modern equipment;
- (3) a housing colony with houses of one or two rooms;
- (4) a hospital building on the bank of the Ganges, in addition to the Ambulance Room and creche within the Factory premises under qualified staff;
- (5) sports facilities;
- (6) two hundred and fifty school scholarships and fifty seats at the Basdeopur High School are provided for the children of workmen; in addition twelve college scholarships are awarded each year.

Many well known brands of cigarettes are manufactured at Monghyr as well as smoking tobaccos.

The principal raw materials used in the manufacture of cigarettes and packets are purchased in India from the following sources :—

Material.	Source of supply.
Unmanufactured leaf tobacco ..	Andhra State.
Cigarette paper and wrapping materials.	West Bengal.
Board for packets ..	Bihar.
Timber for cases ..	Bihar and Nepal Terai.
Tinplate ..	Bihar.

The Cigarette and Printing Factories were transferred in 1928 respectively to Tobacco Manufacturers (India), Ltd., and Printers (India), Ltd. In 1953 the Indian business of Tobacco Manufacturers (India), Ltd. and Printers (India), Ltd. was transferred to the Imperial Tobacco Co. of India, Ltd., so that the two factories now form part of that organisation.

CEMENT INDUSTRY.

Lime stone and Ghhotia is available in abundance near about Simultala. A company styled as "Jhajha Cement and Industries, Ltd." opened a factory near the Jhajha railway station for the production of cement but closed down due to differences among the Directors.

The raw materials for this important industry provided by nature has been fixed for future exploitation.

SMALL-SCALE INDUSTRIES.

Luckeesarai and Khagaria are the two main centres for food industry. Both these towns have developed recently. There are as many as 13 rice, oil and flour mills, big or small, at Luckeesarai, viz. :—

- (1) Messrs. Chuni Lal Chandi Prasad Rice and Oil Mills;
- (2) Ganesh Mills; (3) Messrs. Bhagwati Mills; (4) Gauri Shanker Mills; (5) Hari Flour Mills; (6) Himat Lal Kanhaiya Mills; (7) Kailas Mills; (8) Luxmi Mills;
- (9) Mahabir Mills; (10) Mahasakti Mills; (11) Sita Ram Oil Mills; (12) Shiva Shanker Mills; (13) Kishun Mills.

Similarly Khagaria too has got a number of rice, flour and oil mills, viz.—

- (1) Messrs. Bajrang Rice and Oil Mills; (2) Nand Lal Parusram Das Oil Mills; (3) Mahabir Mills; (4) Jamuna Flour Mills; (5) Lakshmi Mills; (6) Krishna Oil Mills; (7) Sheo Flour Mills; (8) Annapurna Mills.

Besides these there are a few small rice and oil mills at Begusarai, Jamui, Jhajha and Sheikhpura. The condition of these mills naturally fluctuates with the availability of paddy. In War years they worked very well but with the end of the War, there came a period of scarcity and depression. There was shortage of foodgrains and as such controls were rigidly enforced. Paddy husking was closed as Government then had acquired monopoly on it.

The causes for the unsatisfactory condition of these mills may be enumerated as follows :—

At times of scarcity and the controls, the mills were not permitted to purchase paddy and sell rice and rationing of foodgrains was introduced. According to the monopoly scheme the Government used to purchase paddy and hand over the stock to the mills and the mills could only get milling charges. Later on some mills were permitted to purchase paddy on behalf of the Government, and they were asked to supply the polished rice to Government at the controlled rate. But due to the scarcity it was very difficult to get paddy at the rate fixed by the Government and the result was that almost all the mills were lying closed. Improvement in their condition is being noticed recently due to relaxation of State control and the more satisfactory crop in some *kharif* season.

As regards oil mills the mills were dependant upon the oil-seeds imported from U. P. and as such they were to bear the cost of importing the oil-seeds which is about three times the cost of sending the oils by the mills of U. P. to these places.

Secondly there were restrictions on the sale of oil-cakes in Bihar while there was no such restriction in U. P.

A number of very small oil and flour mills, may be about 100, have been set up throughout the district. They have very little establishment cost, their establishments being run with one labourer or *mistry*. They work on a small scale and their markets are confined to small villages in the vicinity and neighbourhood *hats*. For a few years they worked very well and the markets of the big mills were captured by these mills. They generally do not maintain any account and therefore they are not registered for payment of sales tax and income-tax.

These mills generally have a *Chakki* and a pair of *Ghanies* with a small Diesel Oil Engine. These mills do not make out much profit due to their large number.

The industry employs about 500 workmen in this district and the total amount of working capital invested may be estimated at Rs. 10 lakhs.

HOSIERY INDUSTRY.

There is one hosiery factory at Monghyr which is now closed.

ICE AND ICE CREAM MANUFACTURING COMPANY.

Khagaria is specially important for the manufacture of ice used for packing of fish. Ice cream is manufactured at Khagaria, Begusarai, Monghyr, Jamalpur and Jhajha. Ice cream is a new industry and each of the ice cream concerns caters to the local market. The quality is not good and sanitary arrangements poor.

A large quantity of fish is available in the rivers around Khagaria and this has led to the establishment of four ice factories at Khagaria. A large quantity of fish packed in ice is daily exported to Darjeeling, Jalpaiguri, Thakurganj and Calcutta from Khagaria. The average production of ice at Khagaria is approximately 50 maunds per day and it varies according to the availability of fish in the surrounding water.

BIRI INDUSTRY.

Biri-making is one of the most important small-scale industry of the district. Jhajha, Monghyr, Jamalpur and Sheikhpura are the main centres for this industry. There are quite a large number of factories employing more than 500 workers per day at Jhajha. Tobacco for the purpose is imported from Guzrat and Kendu leaves and other raw materials are available in plenty in the areas around Jhajha. The average production of *biri* at Jhajha area alone would be about 10 lacs per day. A considerable quantity of *biri* is exported to Calcutta from Jhajha by several concerns who have a number of branches at different places within the district. It is estimated that a total capital of about Rs. 5,00,000 has been vested in this industry in the district and it gives employment to about 5,000 workers. The rate of wages to a worker is normally Re. 1 per thousand of *biris*.

DISTILLERY.

There is a distillery at Mankatha where country-made wine and spirit are manufactured under the strict control of the State Government. The manufacture is carried on a large scale and at present the factory gives employment to an average of 45 workers. The capital invested in the business is estimated to be about rupees one lakh. It produces potable country spirit to the value of Rs. 22,000

every month consuming 4,000 maunds of coal and 2 maunds of ammonium sulphate. The produce is consumed locally and in neighbourhood.

COLOURS AND CHEMICALS.

The industry of preparing vermilion and different kinds of colour has made some progress at Luckeesarai.

They are manufactured by two fairly large concerns, namely, Drolia Sindur Factory and Messrs. C. M. Drolia Colour and Chemical Co. This is a new industry and still to be developed. The principal raw materials, viz., coaltar, dyes, boric acid and other chemicals are imported.

The process of manufacture is manual. Various chemicals are ground and mixed with coaltar dyes. The mixture is then dried in the sun. The material so manufactured are sorted out qualitatively and then packed.

In the colour industry alone there is an investment of nearly one and a half lac rupees. The average number of persons employed daily is 40.

In the vermilion industry there is an investment of Rs. 2,00,000 and nearly 104 persons are employed daily.

"*Abir*" and "*Alta*" are the by-products. The annual sale averages on Rs. 3,50,000 lakhs. The products of this industry find ready market in Bengal, Bihar, Uttar Pradesh, Madhya Pradesh and Assam.

COTTAGE INDUSTRIES.

The history of gun manufacture may be traced from the days of Nawab-Mir Kasim who had made Monghyr town as his headquarters. An authoritative account is given by Mr. Collins in "Arts and Industries in Bengal". According to him the industry had revived in 1890 and the average number of guns made annually was over 2,000. Formerly there were only five shops which sold guns at the surrounding *melas*. This was stopped under the Arms Act and the manufacture fell. A demand for cheap guns still continued and they were imported from abroad through Calcutta. The gun-makers continued to protest to the authorities against the disabilities imposed on their trade and the import of foreign guns was requested to be stopped. In 1909 there were 25 shops and a S. B. B. L. Gun was sold for Rs. 10 each. This was the cheapest rate ever reached at Monghyr. Barrels were made of cylindrical iron rods welded and bored together. All the other parts were hand made. The manufacturers later started using motor steering rods. Now they are using steam pipe rods which stand very high temperature. There has been little change in the method of manufacture but *mistries* can make

a very good imitation of almost any gun. The locks are generally adorned with ornamentation in line with the English pattern.

After Partition in 1947 some of the gunsmiths were induced to go to East Pakistan on tempting pay to teach the art of manufacture of arms to the people there. If the manufacture of the arms would have been stopped, it might have resulted in an exodus of these gun-makers either to Pakistan or to the manufacture of illicit arms. The State Government, therefore, decided to bring in all the manufacturers in the premises of the juvenile jail which was the historic armoury of the days of Mir Kasim, and especially suited for the storage of arms under the thick wall. The manufacture of arms has been controlled although the industry continues to be in the hands of private owners who number 29.

The output of each manufacturer varies as will be seen in the table below :—

Name of firm.	1953.	1954.	1955.	1956.	1957.	Total.	Hands employed at present.
1	2	3	4	5	6	7	8
Tridip and Co. ..	39	71	114	43	142	409	2
N. P. Sharma & Co. ..	90	102	78	75	29	374	9
Muni Lal & Co. ..	..	..	..	..	..	163	4
Bando and Sons ..	44	30	44	27	..	145	2
B. P. Sharma and Sons	30	43	141	46	14	274	4
Baijnath and Co. ..	3	2	1	1	2	9	1
Mewa Lal and Sons ..	123	144	139	157	67	630	6
Sharma and Sons ..	65	37	36	33	4	175	..
Delux Arms Co. ..	..	12	69	79	25	185	..
Horil and Co. ..	118	61	30	86	59	354	7
Green and Co. ..	..	2	12	12	7	33	..
Royal Arms and Co. •	21	37	36	37	34	165	..
Budhoo and Sons ..	2	61	35	60	46	204	3
Hazari and Sons	..	..	..	..	..	403	4
Pfizer and Sons ..	10	2	2	7	..	15	..
Soukhi and Sons ..	84	229	196	304	228	1,041	10

Name of firm.	1953.	1954.	1955.	1956.	1957.	Total.	Hands employed at present.
1	2	3	4	5	6	7	8
Louton and Co. ..	12	6	19	72	5	114	..
Oriental Arms and Co. ..	..	49	138	161	137	485	3
Hind Arms and Co. ..	4	10	2	6	9	31	3
The Monghyr Gun Manufacturers Co-operative Society.	..	6	19	2	1	28	1
Giri Lal and Co. ..	207	268	254	160	32	921	10
Nand Lal Sharma ..	..	..	..	..	..	247	3
B. S. A. Corporation ..	30	31	78	42	475	656	16
Giridhari and Sons ..	..	..	..	..	..	129	2
Banshidhar and Sons ..	12	17	26	55	42	152	4

Although it retains the character of a "Cottage Industries", it is more secure within the four walls of the jail and has been termed as "Monghyr Gun Factory" since the 18th June, 1948. The external appearance of the guns manufactured by the factory is excellent in spite of crude workmanship. The Home Ministry of India is interested in developing the local skill under rigid security conditions.

Apart from this, all confiscated fire-arms seized in various parts of the State are checked by a committee at Government level and those which are fit for repair are thoroughly renovated at the Monghyr Factory and then sold at reasonable rates. Those which are prohibited bore are sent to Government and the condemned arms are destroyed.

It is noteworthy that from 1953 up-to-date nearly 7,666 fire-arms of Monghyr-make have been sold. The largest sale so far was in 1949. There is a great slum in this industry now. There are at least 300 workers at present. The maximum price fetched by the manufacturers was Rs. 800 for a D. B. B. L. Hammerless gun. The lowest price reached so far is Rs. 40 for a S. B. B. L. Muzzle loading gun.

OTHER COTTAGE INDUSTRIES.

From among the manufactures out of iron and steel are those of trunks, suit cases, domestic utensils and agricultural implements. Messrs. Luxmi Mills and Messrs. Duston Technical are engaged in casting mill machinery parts, while trunks and suit cases are manufactured by Messrs. Khemka Trunk Factory, Monghyr and Messrs. Luxmi Narayan Iron Works.

There are three concerns engaged in the production of indigenous medicines. The soaps made at Luckeesarai, Monghyr and Jamalpur are able to meet the local demands for washing and toilet soaps to some extent.

OTHER CONCERNS.

According to the *District Census Hand-Book of Monghyr, 1951*, there were 1,516 non-textile establishments and 2,889 textile establishments which included 2 cotton ginning, clearing and pressing establishments and 5 silk spinning and weaving handlooms. An establishment is not defined; it will include even a 2-man concern. The textile establishments were mostly concentrated in all the thanas of Jamui subdivision, Gogri thana of Khagaria subdivision, Bachwara thana of Begusarai subdivision and Monghyr town.

Basket-making is carried on mostly in Jamui and Chakai area, rope and mat-making in Chakai and Lakhmipur area, fire-works in Chakai area, Sabai grass rope-making in Jhajha and Kharagpur, indigenous tobacco (chewing and smoking) in Bachwara, Dalsingsarai, Teghra and Begusarai area, Khandsari in Barbigha and Jamui area, poultry farming in Baro area and paddy husking throughout the district but greatly concentrated in Kharagpur area.

The goldsmiths of Kharagpur manufacture a special type of fish made of silver. This is used for decorative purposes and for presentation on the occasion of marriages.

There is one ceramic works started in October, 1953. The said industry started its works with the manufacture of crockery but now they have also taken up the manufacture of low-tension insulators and are manufacturing porcelain electrical goods and some items of handicrafts like image, decorated flowers, pots, etc. About 75 workers are engaged in the said factory and the monthly output of finished products is about Rs. 15,000 (rupees fifteen thousand) and the porcelain electrical goods manufactured are finding a good market in Calcutta.

There are about 30 printing presses in Monghyr district and most of them are situated in Monghyr and Jamalpur.

The statement below shows the capital structure, employment position and the volume of production of some of the important medium type industries of the Monghyr district :—

Name and nature of industrial concerns.		Capital.		
Name and the year of start.	Nature of work.	Fixed Capital.	Working Capital.	Total.
1	2	3	4	5
		Rs.	Rs.	Rs.
M/s. Bihar Chemical Industries (P), Ltd., Monghyr., (1937)	Production of medicines and chemicals.	20,536	1,04,254	1,24,790
M/s. Drolia Sindur Factory, Lakhisarai, Monghyr. (1945)	Manufacture of <i>Sindur</i> and <i>Abir</i> .	28,997	1,90,659	2,19,656
M/s. S. C. M. Drolia, Colour and Chemical Co., Lakhisarai, Monghyr. (1944)	Manufacture of colour and chemicals.	85,842	2,43,186	3,29,028
M/s. Monghyr Gun Manufacturing Industry, Monghyr, Jail area, Monghyr. (1947)	Gun Manufacturing	1,15,000	2,10,000	3,25,000
M/s. Lakshmi Mills, 2, Level Crossing, Monghyr. (1955)	Products of iron and steel.	86,000	30,000	1,16,000
M/s. Duston Technical, Betwan Bazar, Monghyr. (1938)	Products of iron and steel.	77,868	49,009	1,26,877
M/s. Lakshmi Narayan Timber and Iron Manufacturing Co., Naya Bazar, Lakhisarai, Monghyr. (1937)	Products of wood and iron.	23,000	25,000	48,000
M/s. Parmeshwar Prasad, Monghyr. (1954)	Saw milling and furniture.	25,000	15,000	40,000
M/s. Hiralal Dwarka Maharaj, Lakhisarai, Monghyr. (1953)	Saw mill ..	19,000	2,000	21,000
M/s. Biswantha Saw Mills and Furniture Makers. (1956)	Saw milling and furniture.	3,500	1,000	4,500

Employment.				Production.			Sale.
Skilled workers.	Unskilled workers.	Supervisory staff.	Annual payment.	1951.	1953.	1956.	Per cent.
6	7	8	9	10	11	12	13
			Rs.				
5	18	12	33,051	..	..	..	90
2	52	16	38,595	1,87,343	1,33,689	1,83,732	95
26	25	10	23,857	2,16,402	2,09,753	26,186	99.7
250	300	..	3,60,000	6,00,000	3,75,000	4,50,000	100
5	2	1	3,700	84,250	22,444	40,280	65
5	5	..	2,243	22,195	10,200	7,600	..
5	..	..	3,600	64,000	45,000	8,000	90
14	5	1	12,980	..	..	18,000	100
2	2	..	2,520	..	..	..	..
1	2	..	1,900	..	..	..	..

The Minimum Wages Act, 1948 is enforced in the district of Monghyr in all the employments mentioned in Part I of the schedule including in the employment in agriculture mentioned in Part II of the schedule. Since the enforcement of the Act in the district the agricultural labourers of this district are entitled to minimum rates of wages fixed, vide Government notification no. VI/W3-1015/58-L.—11574, dated the 7th July 1958 and all the benefits provided in the Act and in the Bihar Minimum Wages Rules, 1951 framed there-under. Accordingly workers are entitled to receive benefits of fixed hours work, overtime payment, weekly holiday with pay, rest and interval, etc. In case of violation of the provisions of the Act Government machinery appointed for its implementation take legal action against defaulting employers. It cannot be said that there is an overall implementation.

INDUSTRIAL POTENTIAL AND PLANS FOR FUTURE DEVELOPMENT.

It has now become apparent that in spite of such big industrial undertakings like the Cigarette Making Factory of Imperial Tobacco Co., Ltd., and the Workshop of Indian Railways at Jamalpur employing many thousands of persons, the district's economy is essentially dependant upon its agricultural prosperity. Yet this district by no means has exhausted all its capacity for further industrialisation. On the contrary, if properly exploited it is certain to become one of the most industrialised districts of Bihar.

Very soon Barauni will be a highly industrialised area and fully urbanised. This area has been selected for highly potential industrial activities like the erection of an Oil Refinery, a Central Government undertaking, Dairy Farm (Milk Creaming), a State Government undertaking, the Thermal Power Station of the State Electricity Board and a factory of the Alkali and Chemical Industries Corporation (Private), Ltd., of Calcutta, etc. Proceedings for land acquisition for the above have already undergone a good deal of progress. Barauni Railway yard has had an enormous expansion.

Besides such big projects a few industrial establishments of lesser magnitude are proposed to be set up in the district in the near future. They are as follows :—

- (1) Model carpentry workshops at Begusarai, Khagaria, Jamui, Barahiya and Teghra; (2) Model smithy workshops at Begusarai, Khagaria, Jamui and Luckeesarai; (3) one small tools and agricultural implements making factory at Begusarai; (4) one cycle part manufacturing and cutlery manufacturing factory at Mallehpur; (5) Assistance and extension of Bihar Ceramic Works at Mallehpur into the manufacturing of high tension insulators manufacturing; (6) one model casting and refractory at Jamalpur; (7) Tannery and Leather goods manufacturing workshop in Khagaria subdivision; (8) Development of Eri-Silk Farm at Begusarai into

Eri-Silk Institute; (9) one industrial mining school at Jamui; (10) Milk products industry in Khagaria subdivision; (11) Cold storage unit at Luckeesarai; (12) Introduction of power looms in Sheikhpura, Barbigaha, Jamui, Gogri and Bachwara; (13) Industrial training schools at Monghyr and Barauni; (14) Re-rolling mill at Barauni; (15) Bobbin manufacturing unit at Begusarai; (16) Sugar mill on co-operative basis at Manshi in Khagaria; (17) Paper manufacturing unit under Khadi Board Scheme at Sikandra in Jamui subdivision; (18) Common facility workshop for Monghyr Gun Manufacturers.

Even if some of these schemes are implemented Monghyr will be somewhat industrialised.

The office of the Development Commissioner (Small-scale Industries) under the Ministry of Commerce and Industry, Government of India had selected Monghyr district for a rapid survey by an Economic Investigation Team to establish the scope of expansion of existing industries and the possibility for development of new ones keeping in mind its industrial potentialities. The prospects of development of the following industries were examined by this survey in 1959 :—

- (1) Electrical Porcelain Ware; (2) Slates; (3) Bobbins;
- (4) Agricultural Implements; (5) Bicycle and Rickshaw Parts Industries; (6) General Engineering; (7) Cutlery;
- (8) Aluminium Utensils; (9) Foundry; (10) Pharmaceuticals; (11) Cold Storage; (12) Commutators;
- (13) Leather Footwear; (14) Trunks; (15) Fine Wooden Articles; (16) Tanning; (17) Furniture;
- (18) Wire Nails, Wood Screws and Panel Pins;
- (19) Lime; (20) Tiles; (21) Buckets; (22) Gun Manufacturing.

Out of these industries listed above those from serial nos. 1 to 11 have excellent prospects while those from 12 to 22 have only moderately good prospects for development.

For Electrical Porcelain Ware the Team had recommended that at least two small-scale units could be encouraged preferably at Jhajha and for the same necessary technical and financial help be given to the prospective entrepreneurs. Regarding slate it was recommended that the slate slabs should be properly tested with a view to find whether they were suitable for the manufacture of school slates. Particular mention may be made of the fact that the accumulated traditional skill in gun-making and repair was recommended for furthering the interest of bicycle and rickshaw parts industries and general engineering. For cutlery the industry was recommended to have good prospect in the area, preferably at Sangrampur. The Team thought that there were good prospects for a small aluminium utensils unit in Sheikhpura area. Regarding

tanning it was suggested that there was good prospect for the setting up of small tanneries in Monghyr district. Regarding gun manufacture the recommendation was that arrangements may be made for the supply of graded raw materials and suitable machinery to enable the gun manufacturers to ensure durability, resistance, precision and accuracy, qualities essential in an arm. It was also suggested that the feasibility of setting up a testing centre for guns at Monghyr will also be technically examined. The Report of the Investigation Team published in August, 1959 is a useful document. It may also be mentioned that the Team thought that there should be no dearth of skilled labour in the district.

LABOUR AND EMPLOYERS' ORGANISATION.

The industries of the district require both skilled and un-skilled labour. Most of the un-skilled labourers employed in different factories come from within the district itself. The supply of skilled personnel comes from not only neighbouring districts but also from outside India, specially in the supervisory staff. There are organised labour unions in different industries but the unions of the Imperial Tobacco Co., Ltd. and the Indian Railway Workshop at Jamalpur are remarkably well organised and influential. Following is the list of registered labour unions in Monghyr district till 31st March, 1959 :—

Serial no.	Name of the union.	No. of Registration.	Date of Registration.	No. of members.
1	Monghyr Tobacco Manufacturing Workers' Union, Basdeopur, Monghyr.	68	18th September, 1945	2,733
2	Hospital Majdoor Union, Monghyr, Socialist Party Office, Monghyr.	220	19th December, 1947	31
3	Monghyr District Press Workers' Union, T o p k h a n a Bazar, Monghyr.	334	18th February, 1949	98
4	The Electric Supply Workers' Panchayat, Monghyr.	335	19th February, 1949	406
5	Municipality Harijan Karmchhari Congress, Mohanpur, Jamalpur, Monghyr.	345	2nd March, 1949 ..	190
6	East India Railway Ministerial Association, Sadar Bazar, Jamalpur, Monghyr.	362	9th May, 1949 ..	..
7	Jamalpur Municipal Employers' Union, Jamalpur, Monghyr.	369	11th June, 1949 ..	..

Serial no.	Name of the union.	No. of Registration.	Date of Registration.	No. of members.
8	Thana Bari Majdoor Congress, Jhajha, Monghyr.	488	25th January, 1951 ..	..
9	Motor Karmchari Sangh, Shri Krishna Sewa Sadan, Chowk Bazar, Monghyr.	496	22nd March, 1951 ..	..
10	Monghyr Biri Workers' Union, Betwan Bazar, Monghyr.	527	13th September, 1951	..
11	Bihar Chemical Workers' Union, Topkhana Bazar, Monghyr.	538	31st January, 1952 ..	..
12	The All-India Railway Ministerial Staff Federation, Jamalpur, Monghyr.	568	3rd November, 1952..	..
13	The Begusarai Thana Tomtom Majdoor Union, Post Begusarai, Monghyr.	578	7th January, 1953 ..	..
14	Begusarai Biri Majdoor Union, Post Begusarai, Monghyr.	577	7th January, 1953 ..	..
15	District Board Press Workers' Union, Bari Bazar, Monghyr.	590	23rd March, 1953 ..	..
16	Begusarai Scavengers' Union, Begusarai, Monghyr.	600	4th May, 1953 ..	..
17	Sheikhpura Palladar Majdoor Union, Moti Chakdiwan, Post Sheikhpura, Monghyr.	606	5th June, 1953 ..	..
18	Mankatha Distillery Majdoor Panchayat, Village Balgudar, Post Mankatha, Monghyr.	660	23rd March, 1954 ..	..
19	Monghyr Municipal Safai Majdoor Union, Choti Mogal Bazar, Monghyr.	689	4th November, 1954..	..
20	Biri Majdoor Union, Jamui, Monghyr.	702	3rd January, 1954 ..	..
21	Monghyr Municipal Employees' Association, Monghyr Municipality, Bari Bazar, Monghyr.	703	9th January, 1955 ..	..
22	Monghyr Zila Bari Majdoor Union, Babu Bank, Jhajha, Monghyr.	747	30th September, 1955*	..
23	Lakshmi Mill Workers' Union, Topkhana Bazar, Monghyr.	780	31st May, 1956 ..	..
24	Mehthar Majdoor Union, Jamui, Post Jamui, Monghyr.	781	16th July, 1956 ..	..

Serial no.	Name of the union.	No. of Registration.	Date of Registration.	No. of members.
25	Thana Bari Majdoor Union, Sheikhpura, Monghyr.	791	11th August, 1956 ..	..
26	Monghyr District Board Employees' Association, Monghyr.	819	4th January, 1957 ..	..
27	Byabsai Karmchari Sangh, Sheikhpura, Monghyr.	820	8th February, 1957 ..	..
28	Byabsai Karmchari Sangh (Shop Assistant Union) Shah Zuhair Road, Purabsarai, Monghyr.	824	19th February, 1957..	..
29	Biri Majdoor Sangh, Gogri, Jamalpur, Monghyr.	843	27th December, 1957	..
30	Biri Majdoor Union, Asarganj, Monghyr.	845	3rd February, 1958 ..	..
31	Lakhisarai Rang and Sindur Majdoor Union, Purani Bazar, P. O. Lakhisarai, Monghyr.	875	8th November, 1958..	..

TRUCK OWNERS' ASSOCIATION, MONGHYR.

There is a Truck Owners' Association at Monghyr which manages the transport of goods by the public trucks. It works midway between the parties requiring goods to be transported and those transporting it at a certain remuneration. It is an institution run by certain interested individuals with financial responsibilities upon their own shoulders. The Association takes upon itself the responsibility to see that the goods so booked reach safely to their destinations. But for this kind of service rendered, the Association charges 3 per cent of the net transport charges payable, from the amount to be received by the owners of trucks.

EMPLOYEES' ORGANISATION.

Welfare of Industrial Labour.

The Labour Officer under the Commissioner of Labour, Bihar, looks after labour welfare work in the different industrial establishments. Housing condition, recreational, educational and sanitary facilities for the workmen have to be particularly attended to. The employees have to be provided with canteens, hospitals and dispensaries and other requirements under Factories Act. Provisions under the Minimum Wages Act, 1948 safeguard the interest of the workers employed under such a schedule employment as in a motor transport, road construction and building operation, stone breaking,

rice, oil and *dal* mills, *biri* manufacturing, and local bodies. The Minimum Wages Act has also been made applicable to the workers employed in agricultural operation but not yet implemented. The Act has been enforced for the workers of the Monghyr Municipality. The Local Self-Government Department of the Government of Bihar fixed the basis of minimum wages payable to the employees of different municipalities of the State. The municipalities at Monghyr and Jamalpur also adhere to that basis since 1951. It resulted in an increase in the municipal workers pay packet. Workers of both these municipalities are given bonus for good work. The workers engaged in rice, *dal* and oil mills have also been brought under the purview of this Act. The workers have been divided into two categories, one monthly rated and the other daily. For the monthly rated workers the minimum pay is Rs. 40 per month and for daily rated workers Re. 1-6-0 per day. The State Government have fixed minimum rates of wages for the workers employed in *biri* industry. In the district headquarters excepting Monghyr and Bhagalpur it is Rs. 2-4-0 per thousand. At Monghyr the minimum rate is Re. 1-14-0 per thousand and in rural areas it is Re. 1-9-0 per thousand. It is reported that the enforcement of minimum rates of wages in respect of *biri* industry has not been very encouraging. However, on representation from employers the minimum rates of wages was once revised.

For the workers employed in the motor transport industry the minimum rates of wages have been fixed. For a driver this is Rs. 65 per month and for a conductor Rs. 45. Also the employers pay to the workers a *khoraki* at the rate of Re. 1 per night spent out of headquarters.

There are a number of Acts, Central and State that go to the benefit of workers. The provisions and rules framed under the Workmen's Compensation Act, 1923, Trade Union Act, 1926, Employment of Children Act, 1933, Payment of Wages Act, 1936, Industrial Disputes Act, 1947, Workmen's Protection Act, 1948, State Employment Insurance Act, 1948, Factories Act, 1948, Employees' Provident Fund Act, 1952, etc., have been endeavouring to safeguard the interests of workers from different angles. With the enforcement of Bihar Shops and Establishments Act, 1953 and Weekly Holiday Act, the employers have been enforced to provide certain facilities and a compulsory weekly rest to their workers. In the post-independence period rapid legislation on important labour laws have much improved the status of the workers.