Chapter 4

HISTORY AND WORKING
CONDITIONS OF THE SPINNING
MILL

Inspite of the man-made fibers making
inroads in the fibre world, cotton still stays on the top. Where worldwide
popularity and consumption is concerned, India has a special affinity to
cotton because it was nowhere else but in India that cotton cultivation
was first domesticated and use of this fibre was made for manufacture
of yarn and cloth. Also cotton industry is the oldest and foremost industry
in India. Nearly 60 million people depend on its cultivation, processing,
trade industry, exports etc. for their livelihood. The export of textile goods
and raw cotton alone fetch for the country a tidy sum of Rs 3,500 crores
in foreign exchange. The textile mill chosen by the author for the present
study is a unit of National Textile Corporation (NTC) [Delhi, Punjab,
Rajasthan, LTD.] and is situated in Azadpur, Delhi-33.
1. Author standing near the entrance gate of Ajudhya Textile Mill, National Textile Corporation.

2. Blow Room Entrance
The mill commenced its business in the year 1922 under the private ownership of Seth Shadilal. In 1960, the ownership went into the hand of Karamchand Thapa. But, soon within the same year the ownership went into the hands of Kezrilal brothers. The unit came under Government undertaking in 1971 under the "Sick Textile" (taking over management) act 1971. At the time of incorporation, the mill undertook only weaving as its production activity but from the year 1950 onwards, it included spinning also in its production activities. Today, the mill is engaged in spinning, winding, weaving and packaging while it excludes dying and printing from its working sphere and produces only controlled cloth.

Ajudhya Textile Mill (NTC) is situated in North Delhi, Azadpur in the industrial area. There are about 800 workers engaged in the spinning department, of the total strength of about 1600 workers spread out in various department of this particular textile mill. There are in all four shifts of working in the mill,

- Shift-A [6.00 a.m. – 2.00 p.m.]
- Shift-B [2.00 p.m. – 10.00 p.m.]
- Shift-C [10.00 p.m. – 6.00 a.m.]
- Shift-D [10.00 a.m. – 6.00 p.m.]

(or General shift)

For every worker the shift keeps circulating after every 15 days.

Various working department of the mill are:

1. Spinning
2. Winding (reeling, cone winding, color winding)
3. Warping
4. Sizing
5. Drawing in Section
6. Weaving (automatic/plain)
7. Dyeing and
8. Folding

About 50% of the total strength of the mill workers are engaged in spinning department, which covers 3/4 of the mill working at large. Second largest department is that of weaving where about 1/4 of the mill workers are engaged. But lately because of surplus labour one shift i.e. night shift had to be removed in this department, and a large number of workers were shifted to winding department. A large number of workers slog in winding, warping, reeling, and sizing sections of the mill for three regular shifts (i.e. A, B, and C). There are three shifts in drawing-in-section also but a very few worker strength is needed in this department. Dyeing and folding department has been lying dormant and non-functional for some undefined reasons.

There are three categories of workers in the mill, which are, (a) permanent workers, who work on permanent basis i.e. for 26-27 days with four days off. (b) Temporary workers, who work for a particular length of time (i.e. 3 months or so) and are deployed for another period of time (i.e. one month or so) as per the need. In other words temporary workers are kept for a particular length of time for a particular piece of work and are laid off for some time until the need arises again. (c) Substitute workers are engaged as per the availability of work, but they are assured a minimum of 15 days of work in a month.
WORK FLOW IN SPINNING DEPARTMENT

COTTON GODOWN
Cotton in Raw Form

Roving Converted by 'Picker' in RIN DEPARTMENT

To Blow Room (by Carriers)

YARN:
Final Product of SPINNING DEPARTMENT
the Weaving Dept.

by Carriers

BLOW ROOM
Cotton Treated with Water and Oil for 24 hrs. in Line Machine, fed by Cotton Feeder

LINE MACHINE
- FANNING MACHINE
- BEATING POINTS
- DISTRIBUTOR
- RESERVE BOX
- FINISHER
When Lap Length is 51 m
Line Machine Cuts it.

'LAP' brought to CARDING MACHINE (in ROOM) by 'Lap Carrier'

Sliver Converted by 'Roving' by 'Simplex Frame Tenters' on SIMPLEX MA

'LAP' brought to CARDING MACHINE (in ROOM) by 'Lap Carrier'

Straightening of Sliver by 'Draw Frame Tenters' on ROLLERS

Chapter 4: History and Working Conditions Of the Spinning Mill
3. Line Machine

4. "Lap" on the Line Machine
Hierarchial categories of workers are:

- **Head jobber** - Chief of number of jobbers.
- **Jobber** - Supervises over a number of workers.
- **Worker** - Handles the machines.
- **Helper/Reliever** - Relieves worker at the time of break.

Other than the main staff employed on the machines there are other employees with designations like Sweepers, carpenters, machine-men, fitters, machine cleaners, machine printers, machine oilers, distributors, and gardeners, peons and security guards employed in the office wing.

There are all kinds of machines in the mill i.e. automatic, semi-automatic and plain. Various designations (workers/spinners) in spinning section of the mill are:

a) **Cotton carriers**: They bring cotton (from cotton seeds, after beating) in trolleys to blow room.

b) **Cotton feeder**: After beating cotton with water and oil for 24 hours, cotton is fed to the fanning machine by cotton feeder which has beating points at regular intervals.

c) **Lap carrier**: When lap is 51 meter long, machine automatically cuts it and lap is carried to carding machine by lap carrier.

d) **Card tenter**: His job is to handle carding machines where lap is converted to sliver.

e) **Draw frame tenter (DFT)**: The sliver is taken to rollers (Draw frame) for straightening. The handling of the machine is done by DFT.

f) **Simplex frame tenter (SFT)**: Sliver simplex machine is handled/operated by SFT's which involves conversion of sliver into roving.

g) **Bobbin carrier**: His job is to carry roving on bobbins to ring frame.
5. Lap rolls each having 51 m of Lap.

6. Laps being fed into Carding Machine for conversion to "Sliver".
section.

h) Picer (4.3 and double sider) : Picer handles the machines which convert roving into yarn, which in turn is taken to weaving department from here.

i) Relievers/Helpers : They are ubiquitous all over the mill working premises, their job is to give regular workers a break.

Various section of the Spinning department can be specified as follows:

i) Blow Room : There are two types of machines i.e. primitive and advanced (10 years hence) in this wing, their function and operation is same. Cotton feeders and lap carriers are in charge here. The main function of the machine here is to remove dirt and impurities from raw cotton by beating and fanning action. The final product carried out of this room is lap.

ii) Card Room : Here, machines are categorized on the basis of the speed that they are performing, i.e.

(a) High speeder, where 5 machines are handled by one worker.
(b) Semi speeder, where 14 machines are handled by one worker.

Handling of machines in this section is done by card tenter. Final product from this wing is sliver, which is the finer form of lap.

iii) Drawing frame : Here, there are two types of machines i.e.

a) High speed drawing frame : where, one worker is engaged on two machines.

b) Ordinary speed drawing frame : Here 4 machines are handled by one worker.

Drawing frame consist of 4 rollers of increasing speed and 4th roller
7. Card Tenter at the Carding Machine

8. Simplex Machine; Sliver being converted to "Roving"
has 8 times speed that the 1st. In the processing 8 slivers are condensed into one sliver and this process involves straightening and softening also. Simplex machine converts sliver into roving. Work is done by simplex frame tenters and bobin carriers. Drawing frame tenters (DFT’s) or Doffers carry bobbins from spinning frame to ring frame section.

iv) Ring Frame Section: Here roving is converted into yarn. The workers handling the machines here are called Picers. They are of following categories:

a) 4 Sider picer: When 2 machines with 4 sides are handled by one worker, he is called 4 sider.

b) 3 Sider picer: When 3 sides are handled by one worker, he is called 3 sider.

c) 2 sider picer: When 2 sides are handled by one worker, he is termed 2 sider or double sider.
9. Ring frame section; Roving being converted to "Yarn".
10. Spinner operating with left hand on a fast moving machine in Ring Frame section.
Now we can discuss briefly as to what happens to the yarn, i.e. finished good of spinning department starting from the winding section:

Yarn bobbins are done into cones on semiautomatic or automatic machine by winder. In a separate section yarn is woven into loose rings instead of cones on different kinds of machines by creelers. Colored cone winding is done by color cone winder on separate apparatus. Hence these cones/loosely woven rings are taken to warping department where warping is done jointly by creelers, warpers and helpers (Warp is a lengthwise arrangements of threads in a loom). For sizing there are front and back sizers on the sizing machine and there are a couple of men on the roof top who manufacture the sizing mixture, which comes to sizing machines through pipes. After winding, warping and sizing, the looms are brought to drawing in section, where work is done by reacher and drawer on head shaft machines. The looms are taken to weaving section from here, where threads are finally woven into fabric by weavers on auto looms (i.e. where 8 machines are handled by one worker) and on plain machines (i.e. where 4 machines are handled by one worker). Thereafter, cloth is taken to dyeing and folding department which presently is lying dormant for some reason, therefore mill is providing only white cloth.

Out of the total sample of 247 spinners, 204 are doing night shift (i.e. 82.59%) and 156 out of total number (i.e.63.157%) have had injury due to accidents in the mill while working, most of them resulting in cut fingers. Out of the total number, 129 spinners are comparatively healthier. Amongst the exposed group there are 159 permanent, 76 substitute and 12 temporary workers.
The humidity (%) and temperature (°F) levels in various sections of spinning department are as follows:

<table>
<thead>
<tr>
<th>Sr No</th>
<th>Name of the Department</th>
<th>Humidity (%)</th>
<th>Temperature (°F)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Blow room</td>
<td>70 - 75</td>
<td>80 - 82</td>
</tr>
<tr>
<td>2.</td>
<td>Card room</td>
<td>53 - 55</td>
<td>83 - 87</td>
</tr>
<tr>
<td>3.</td>
<td>Speed frame section</td>
<td>55 - 57</td>
<td>87 - 90</td>
</tr>
<tr>
<td>4.</td>
<td>Ring frame section</td>
<td>58 - 60</td>
<td>82 - 88</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sr No</th>
<th>Name of the Department</th>
<th>Temperature (°F) in Summers (May &amp; June)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Blow room</td>
<td>86 - 88</td>
</tr>
<tr>
<td>2.</td>
<td>Card room</td>
<td>88 - 90</td>
</tr>
<tr>
<td>3.</td>
<td>Speed frame section</td>
<td>91 - 93</td>
</tr>
<tr>
<td>4.</td>
<td>Ring frame section</td>
<td>93 - 99</td>
</tr>
</tbody>
</table>

a) Production is maximum from November to February.
b) Production is minimum from May to August.
c) It is average in the months of September, October, March, and April.

Expected production (approx.) in a month or 30 days is 195000 kg, whereas, actual production in 30 days is much lower i.e. 150000 kg. only. At present 1600 workers are on the roll. Of the total number only 1300 are given day to day sanctioned employment, out
of which 1000 are permanent and rest of them are substitute workers.

**Canteen Facility** : The mill has a small canteen, serving only tea and some snacks. Lack of maintenance and hygiene was quite apparent to the author.

**Medical Facilities** : There is one dispensary in the mill, which runs short of many things i.e. it is not adequately equipped and provides only routine medicines to the employees free of cost. The employees are covered under the "Employee State Insurance Act, 1948", thus are entitled to sickness benefits as per the provision of the act.

**Uniform** : Except for Peons and security personnel, no other employee/worker is provided with any kind of uniform or uniform allowance.

**Educational facility** : There is a library in the mill which however does not suffice the needs of the labour force. And there is no school for workers children.

**Accommodation** : Neither houses nor rent allowance is provided to the mill employees. Only a very small percentage of employees enjoy the privilege of staying in the quarters provided by the company.

**Wash room/Toilets** : Toilets and washrooms are very badly maintained and no effort is being made to keep them clean.

**Rest-rooms** : There is half an hour break in each shift for workers to freshen up and relax. But, there is no such facility as rest room where workers can retire to and relax during their break hour. So they have no other option but to rest under the trees or some shaded area in the factory premises.