

1. TAG		2. SIZE	
3. Tag Clerk			
4. BIN QUANTITY		5. MINIMUM	
6. PLACE RESERVE		7. PLACE PREPARATION	
8.	9.	10.	11.

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Quantity delivered on Tag No.	11	12	13	14	15	16	17	18	19	20
1	2	3	4	5	6	7	8	9	10	11

Figure 2



Figure 3

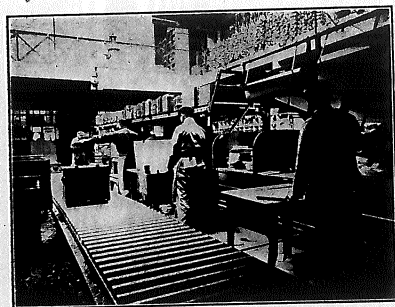


Figure 4

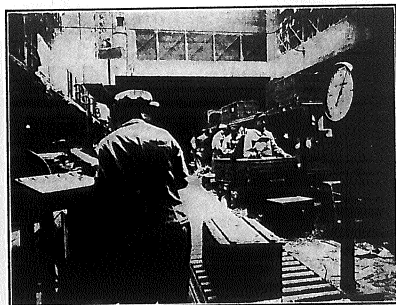


Figure 5

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same article and delivers it with its tag to the preparation, noting on the old tag the quantity delivered and the number of the new tag. At the same time, he stamps on the back of the old tag the hour and minute at which he delivered the merchandise to the preparation; and at the preparation the hour and minute of reception are also stamped on the same tag. Fifteen minutes are allowed between the time the tag leaves the preparation and the time the new bin is delivered to the preparation. This time is verified by the time stamped on the back of the tag. After stamping the old tag is delivered to the balance clerk, who notes therefrom on the balance sheet the quantity delivered and the balance remaining in the reserve.

6. *Preparation.* In order to facilitate the preparation of orders and the billing, I was led to make a radical modification in order forms, which would take too long to describe here. The orders received in duplicate pass first by the control office whose chief business is to mitigate the ambitions of the branch managers by reducing their orders to a point which leaves them just enough for their current needs. Rapid turnover is thus assured. The orders are then given, still in duplicate, to the preparation clerks, divided as equally as possible between the three clerks employed at that work. Each clerk takes from the center of the preparation (by preparation I now mean the concentrated stores room which is the essential feature of this system) a large wicker basket, mounted on rubber-tired wheels with roller bearings, that goes between the racks in which the articles have been arranged according to symbol in the same order in which they are indicated on the branch manager's order. She takes out the quantities asked for and at the same time corrects, if necessary, the price or the catalogue number, and finally brings it back to the center, from which she starts with another truck and another order. In the meantime, of course, she orders new bins when necessary, as described above. It is now fairly obvious—and this is the really important new feature of this organization—that the separation of the stores room into preparation and reserves has reduced enormously the distance to be covered by the preparation clerk for each order, thus saving the greater part of the running-about time formerly taken by each clerk. In this particular case, instead of having to run over five thousand square meters of space, she has only

to cover about three hundred square meters. This fact, together with certain other details and the use of a task and bonus system, explains why the handling of the merchandise and the filling of orders in the preparation and reserves required finally five persons instead of the eighteen or twenty that would have been required under the old methods.

I may be permitted to insist here on the applicability of this method to a wide variety of enterprises. I myself later applied it first to the big supplies stores rooms of the Chemins de Fer de l'Est (Eastern Railroad) at Hoisy-le-Sec, near Paris, with similar results. At about the same time I organized the largest wholesale druggist supplies house in France in the same way. This system is now being installed by myself and some of my former engineers in many other chain stores, mail order stores and factories, always with results more or less similar. Of course, it is not of universal applicability, as any factory manager or department store manager will see, though I may call attention to the fact that the sales departments of a department store stand in the same relation to reserves as does my preparation in a stores room to the reserves. If I were to try to formulate a rule, I should say that this method is to be used with advantage in all cases where the stores room occupies a large area and must deliver at frequent intervals comparatively small quantities of practically every variety of merchandise stored. The time required to prepare an order is almost entirely occupied in running from one point to another in the stores room, and it is clear that this time is reduced in proportion as the area of the stores room is reduced, on condition that in the reduced area (the preparation) is found a complete representative stock. As the restocking of the preparation from the reserves is done in larger units, one or several bins at a time, and at rarer intervals—in practice from three days to a month—it is evident that the moving time in the reserves is very much less than it would be if each detailed order were filled from the reserves.

The remaining operations 7, 8, 9 and 10 were also studied and modified in the same spirit, with a resulting mechanization which contributed materially to the reduction of the personnel. As, however, this presents no new principle, it can be rapidly and summarily described.

In order to avoid manual handling, a booster and