

"THREE-MACHINE COMBINATION"

OR FIVE OPERATIONS AT ONE AND THE SAME TIME

By its three-fold capacity magazines, pamphlets, catalogs and such books may be handled with a facility considered hitherto impossible. The advantages are evident at a glance. The first machine is the gatherer-collator-jogger. Its operation may be briefly described thus:

The signatures are stacked in the hoppers in their regular order and can be replenished by supplying more of the same fold on top as the machine takes them away from the bottom, which is done by suckers being brought against the bottom of each pile and drawing down on the bottom signature or section, and at the same time the grippers swing in and grasp the drawn down signature, which, if it is correct (i. e., having the proper number of pages), will be drawn out and dropped into the conveyor channel, after which the carrier pins move the signature along in said channel to a point under the next section in time for the section to fall upon the preceding one, and in this way a continuous flow of gathered books are delivered at the opposite end of the machine. The collating is done as explained above, while the machine is in operation; should there be a leaf missing or a leaf too much in the section grasped by gripper jaws, it will cause the machine to stop and allow for correction, which is done by dropping a perfect section on the pile where the imperfect section would have fallen; the imperfect section is then taken from the gripper jaw and the machine started.

The jogging is done by a patented jogger chain which jogs each

signature as it falls, and in that way a gathered, collated and jogged book, ready for the stitching, is produced.

The two remaining sections (properly they may be termed machines, by themselves), are respectively the stitcher and the coverer. The stitching consists of one, two or three wire staples, as is usual in work of this class. From this machine the books pass on to the covering machine, which is shown in the cut as nearest the reader and which is the last machine of the combination. This coverer has a number of important improvements that insure a much larger output than is possible on the old-style coverers. A very important feature of this coverer is one whereby the gluing device will remain depressed and away from the book if for any reason there should be no cover to glue. Thus the back of the book is not soiled, but passes through clean and can be fed in again for covering.

Thus it may be seen that with one turn of the gathering machine this "combination" will produce a gathered, jogged, collated, stitched and covered book. The speed is from sixty to ninety R. P. M., according to size of book.

The total weight is 15,850 pounds, made up as follows:

The weight of gatherer ((twenty sections)	9,000 pounds.
" " " stitcher	1,350 pounds.
" " " coverer	5,500 pounds.

It is built in three sizes, namely: 7" x 10", 9" x 12", 10" x 14". Any number of sections is possible.