

A. S. ALLEN.
COLLECTOR FOR PRINTING PRESSES.
APPLICATION FILED JUNE 19, 1911.

1,009,459.

Patented Nov. 21, 1911.

Fig:1.

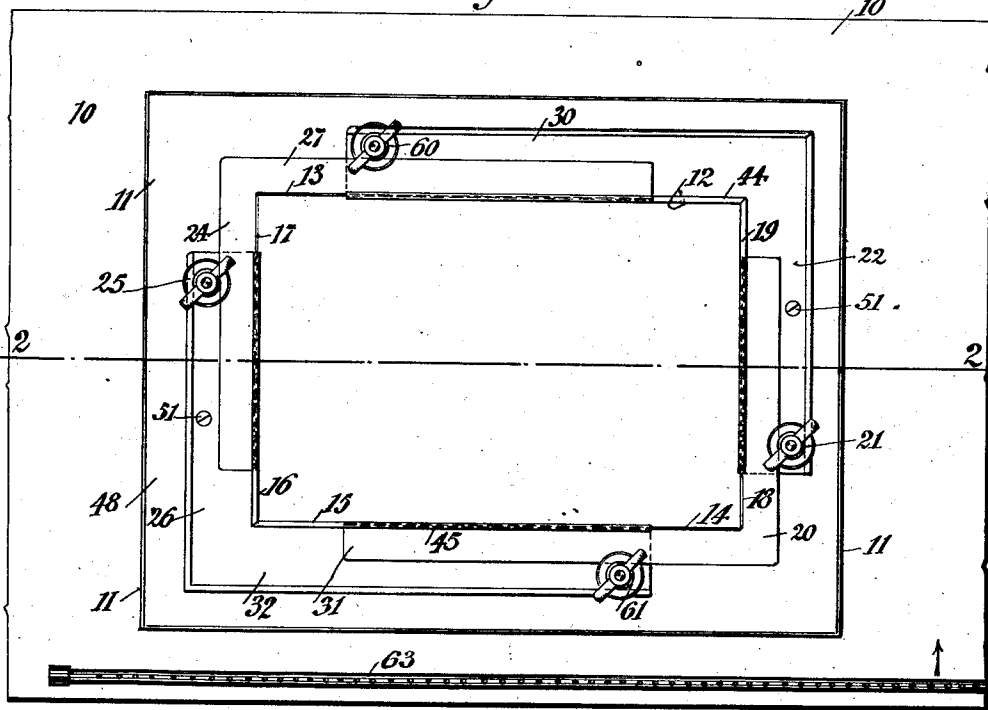


Fig:2.

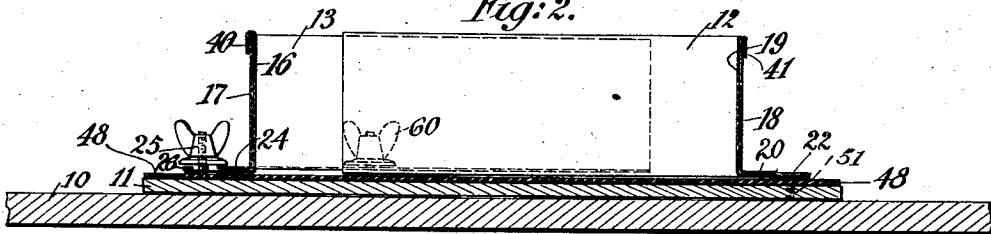
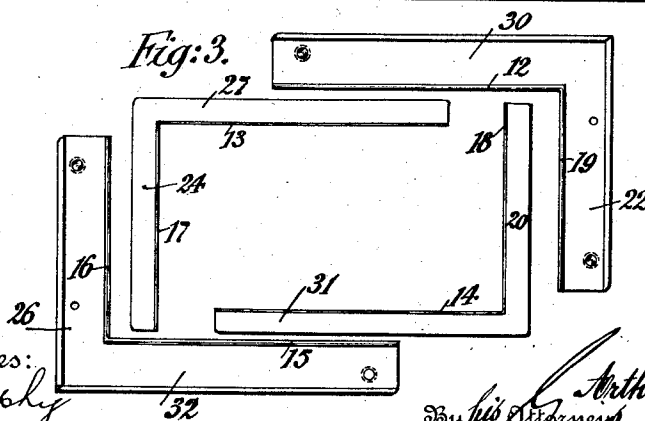


Fig:3.



Witnesses:
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By his Attorney
Robert S. Surpin.

UNITED STATES PATENT OFFICE.

ARTHUR S. ALLEN, OF BROOKLINE, MASSACHUSETTS, ASSIGNOR TO PHILIP RUXTON, INCORPORATED, A CORPORATION OF NEW YORK.

COLLECTOR FOR PRINTING-PRESSES.

1,009,459.

Specification of Letters Patent.

Patented Nov. 21, 1911.

Application filed June 19, 1911. Serial No. 634,108.

To all whom it may concern:

Be it known that I, ARTHUR S. ALLEN, a citizen of the United States, residing in Brookline, in the county of Norfolk and State of Massachusetts, have invented certain new and useful Improvements in Collectors for Printing-Presses, of which the following is a specification.

This invention relates to a sheet collector for printing presses in which an air-cushion is formed between the sheets falling into the box, whereby the descending sheets are made to fall true without offset.

The object of the invention is to provide a device of this character which is simple in construction, efficient in operation and easily adjustable for sheets of different sizes.

In the accompanying drawing, Figure 1 is a top-view of the collector in position on the delivery-board of a printing press. Fig. 2 is a section on line 2, 2, Fig. 1, and Fig. 3 is a top-view of the separated walls of the collecting box.

Similar letters of reference indicate corresponding parts.

The delivery-board 10 of the press may be of the usual construction found in cylinder presses, or the same may be a plain board without the usual slots for the rods of a jogger.

The box of the collector comprises the base-board or bottom 11 and side walls 12, 13, 14, 15 and end walls 16, 17, 18, 19. The walls of the box may be made of any suitable material, such for instance as metal and are provided at the lower edges with flanges and at their upper edges with down-turned rims whereby said walls are adjustably and slidably connected, thereby permitting the box to be extended both end-wise and laterally and also reduced in size for adapting the box to receive paper of such size as it is desired to collect in the same.

In the construction shown, an outer side wall 12 and end wall 19 are made integral, likewise the outer side wall 15 with the outer end wall 16, also the inner side wall 13 is made integral with the inner end wall 17 and the inner end wall 14 is made integral with the inner end wall 18. The flange 20 of the end wall 18 is adapted to be received beneath a thumb-nut 21 of a screw secured in the flange 22 of the outer end wall 19 and the flange 24 of the end wall 17 is adapted in like manner to be received between a

thumb-nut 25 and the flange 26 of the end wall 16 to which the screw of said thumb-nut is attached. The base flange 27 of the side wall 13 is in like manner adapted to be clamped to the flange 30 of the side wall 12 by a thumb-nut 60 and the base flange 31 of the side wall 14 is adapted to be clamped to the base flange 32 of the side wall 15 by a thumb-nut 61. The end wall 19 is provided at its upper portion with an over-turned rim 41 and the end-wall 16 with an over-turned rim 40. Said rims 40 and 41 form guide-ways for the upper edges of the end walls 17 and 18 respectively. The side walls 12 and 15 are also provided with over-turned rims 44, 45 which receive and guide the inner side walls 13 and 14. The inner and outer side walls are by the means described securely guided and retained together. When it is desired to reduce or enlarge the opening between the walls for receiving smaller or larger sheets of paper, the thumb-nuts are released and thereupon each of the walls is freed and the walls may be adjusted relatively to each other to the desired extent after which the thumb-nuts are again clamped, thereby clamping the lower flanges of the inner end and side walls to the flanges of the outer end and side walls and locking the parts securely together in the desired position. The base or bottom-board 11 is preferably provided at its upper side with a sheet of rubber 48 whereby the collecting-box reliably holds its position thereon notwithstanding any jarring of the printing press. In case, however, it is desired to still further secure the collecting-box to the base-board this is done by means of screws 51 passing through the base flanges of the end members of the box and into the base-board, said screws being inserted after the box has been placed at the desired point on said board.

For use, the base-board 11 having the collecting-box applied thereto, is placed upon the delivery-board of the printing press in such position as to receive in the box the sheets of paper as they are delivered in printed condition by the press. The sheets of paper upon being delivered enter the upper portion of the box, but by reason of the air entrained in the box being shut off by the entering sheet of paper, the sheet does not immediately descend in the box but gradually descends while the air dissem-

inates or escapes between the edges of the paper sheet and the walls of the box. The entrained air acts as a cushion to impede the descent of the sheet which when the air is disseminated falls true on the sheet below. During this slow descent the ink has sufficient time to dry and thereby the sheet is delivered upon the preceding sheet in the box with the ink upon the same in a sufficiently dry condition, to prevent the objectionable off-setting, blurring and smudging which frequently occurred with the use of the jogging devices hitherto employed.

For heating the air in the box by which also the drying is facilitated, a flame may be passed over the box. By this means the air in the box is heated preparatory to the receiving of each sheet therein, said heating operation taking place between the delivery of each sheet by either a set of gas flames or an electric heater passing periodically over the top of the box. A gas-pipe 63 is shown in Fig. 1, and is shown as broken off, any suitable means forming no part of my invention and therefore not shown in the drawings, being used for supporting and actuating the same.

I have described one embodiment of my invention, but it is obvious that changes may be made in the construction without departing from the spirit of the same.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:—

1. A sheet collecting box for a printing press comprising two diagonally disposed fixed angular members having side and end walls and outward flanges at their lower edges, two adjustable diagonally disposed angular members having side and end walls interlapping with the side and end walls aforesaid and provided with outward flanges at their lower edges, and means for clamping said flanges to hold said members in adjusted position.

2. A sheet collecting box for a printing press comprising a base, two diagonally disposed fixed angular members having side and end walls and outward flanges at their lower edges, two adjustable diagonally disposed angular members having side and end walls interlapping with the side and end walls aforesaid and provided with outward flanges at their lower edges, and means for clamping said flanges to hold said members in adjusted position.

3. A sheet collecting box for a printing press comprising a base provided with a rubber mat, two diagonally disposed fixed angular members having side and end walls and outward flanges at their lower edges, two adjustable diagonally disposed angular members having side and end walls interlapping with the side and end walls aforesaid and provided with outward flanges at their lower edges, and means for clamping said flanges to hold said members in adjusted position.

4. A sheet collecting box for a printing press comprising two diagonally disposed fixed angular members having side and end walls and outward flanges at their edges, two adjustable diagonally disposed angular members having side and end walls interlapping with the side and end walls aforesaid and provided with outward flanges at their lower edges, and means for clamping said flanges to hold said members in adjusted position, one set of said members having overturned lips along their upper edges engaging the upper edges of the walls of the upper set.

In testimony, that I claim the foregoing as my invention, I have signed my name in presence of two subscribing witnesses.

ARTHUR S. ALLEN.

Witnesses:

JOHN MURTAGH,
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