April 24, 1951 H. ZABEL, JR., ET AL 2,550,032

TAG FEEDER

Filed Jan. 23, 1948 2 Sheets-Sheet 1

Fig. 1.

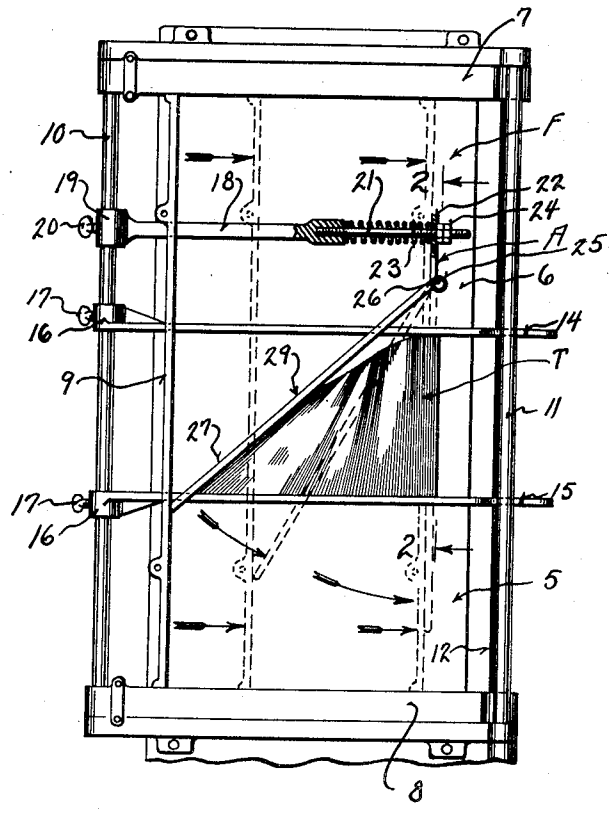
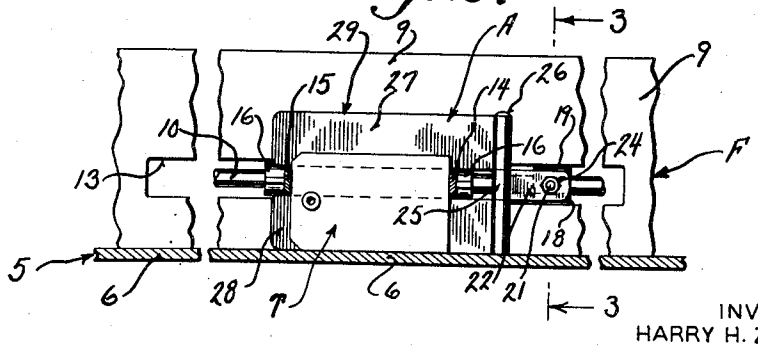


Fig. 2.



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Fig. 3.

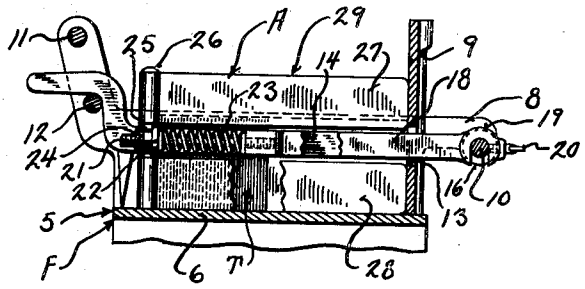
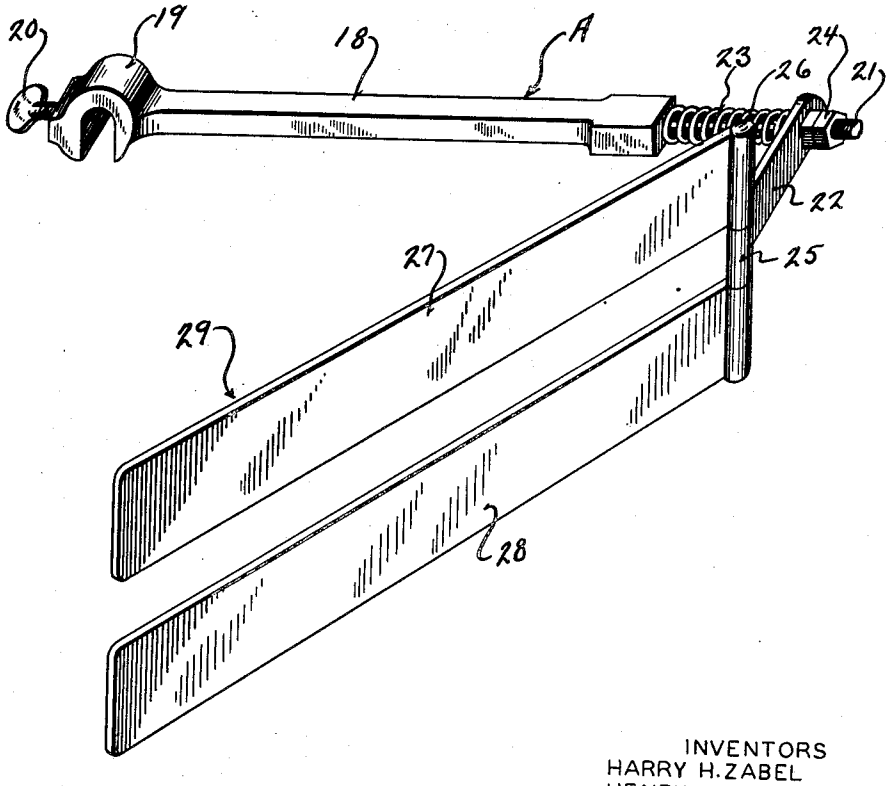


Fig. 4.



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TAG FEEDER

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2 Claims. (Cl. 271—62)

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This invention appertains to feeding devices for printing presses and more particularly to an automatic device for feeding tags to a printing press of the platen type. Much difficulty has been experienced in the proper feeding of shipping and like tags to printing presses due to the reinforced openings at one end thereof, which constitutes an undue bulk or thickness at one side of a pack of tags and a corresponding thinness on the other side of the pack of tags, resulting in the uneven presentation of the tags to the sheet feeding mechanism of the press.

It is, therefore one of the primary objects of our invention to provide an attachment for the magazine of printing presses, which will effectively and continuously feed and hold the foremost tag of a pack of tags in a proper straight position for engagement by the sheet feeding mechanism of the press.

Another salient object of the invention is to provide a feeder arm pivoted at one end adjacent to the forward end of the magazine and at the thin side of the pack of tags and engaging the rear end of the pack of tags having its free end movable forwardly by the usual feeder back rest plate of the magazine, whereby the angle of the said feeder arm will gradually decrease as the arm is swung forwardly on its pivot and thus compensate for the removal of the tags from the magazine by the press feeder arm.

A further object of our invention is to provide a tag feeding attachment for printing presses, which can be readily and quickly applied to the standard magazines of the said feeding device of a printing press without any change in the construction thereof at all.

A still further object of my invention is to provide a tag feeding mechanism for printing presses, which will be durable and efficient in use, one that will be simple and easy to manufacture and one which can be placed upon the market at a reasonable cost.

With these and other objects in view, the invention consists in the novel construction, arrangement and formation of parts, as will be hereinafter more specifically described and claimed, and illustrated in the accompanying drawings, in which drawings:

Figure 1 is a top plan view of the magazine of a sheet feeding mechanism for a printing press showing our novel attachment incorporated therewith, parts of the attachment being shown in section.

Figure 2 is a detail, sectional view taken on

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the line 2—2 of Figure 1 looking in the drawings showing our tag feeder in use.

Figure 3 is a detail, vertical, sectional view taken on the line 3—3 of Figure 2 looking in the direction of the arrows and showing our device in use.

Figure 4 is an enlarged, detail, perspective view showing our tag feeding attachment removed from the magazine.

Referring to the drawings in detail, wherein similar reference characters designate corresponding parts throughout the several views, the letter A generally indicates our novel attachment for a sheet feeder F of a printing press.

The sheet feeder F is of the automatic type and corresponds to a well-known type of sheet feeder now found in the open market. As illustrated, the sheet feeder F includes a magazine 5 having a table 6 which ordinarily receives sheets on edge. Connected with the table 6 are side rails 7 and 8. Slightly mounted on the table 6 between the side rails 7 and 8 is a back rest supporting plate 9. The side rails 7 and 8 are connected by a rear tie rod 10 and by a front tie rod 11 and the over front shaft 12 of the feeder. The back rest supporting plate 9 is gradually fed forwardly when the feeder is in use by the ordinary mechanism found in the feeders now on the market, and this feeding mechanism can be of the same type as shown in the A. Kluge et al. Patent, 1,877,892, issued September 20, 1932. Hence, this mechanism has not been shown or described. The back rest supporting plate 9 for the sheets is provided with a longitudinal slot 13 for receiving certain parts, as will now be described.

As in the usual construction, the side guides 14 and 15 are provided for the material being fed to the press, and these side guides extend through the slot 13 formed in the back rest plate 9. The side guides 14 and 15 are adjustably mounted by means of a collar 16 on the rear rod 10 and are held in an adjusted position by set screws 17. The forward ends of the guide rods are hooked over the front shaft 12 of the feeder.

Our attachment A comprises a supporting arm or bracket 18 and in applying our attachment A to the feeder this arm is placed through the slot 13 in the plate 9, and the rear end of the arm or bracket is provided with a hook or head 19, which is slipped over the rear rod 10. The head 19 carries a set screw 20 whereby the arm or bracket 18 can be held in a desired adjusted position on the feeder relative to a pack of tags T to be fed to a printing press, not shown. The

bracket 18 extends parallel with the side guides 14 and 15, and its forward end has secured thereto a guide rod 21. Slidably mounted on the guide rod 21 is a hinge plate 22. The plate 22 is normally urged forwardly on the guide rod 21 by an expansion spring 23 which is coiled about the rod and confined between said plate 22 and the bracket arm 18. Adjustable stops 24 are threaded on the guide rod 21 for limiting the forward sliding movement of the plate 22. The inner edge of the plate 22 has formed thereon a hinge barrel 25 for the reception of a hinge pin 26 which carries the upper and lower leaves or sections 27 and 28 of the tag feeder arm 29. In use, the lower leaf 28 extends below the side guides 14 and 15 while the upper leaf 27 extends above the side guides and rests thereon.

Our attachment can be quickly associated with a feeder of the type illustrated, and it is merely necessary to pass the bracket arm 18 through the slot 13 of the back rest plate 9 and to hook the head 19 over the tie rod 10. The pack of tags T are now placed on the table 6 and the side guides 14 are adjusted according to the length of the tags. The side guides 14 and 15 extend forwardly over the table 6 between the leaves 27 and 28 of the feeder arm 29, and this arm engages the rear end of the pack of tags T. The hinge plate 22 is adjusted relative to the foremost tag, and the back rest plate 9 is fed forwardly until the foremost tag of the stack is in proper position for engagement by the feeder arm of the feeding mechanism for the press, not shown. After the adjustments have been made so as to insure the proper delivery of the tags to the press, the press is started and operated in the usual way.

The feeder arm 29 functions to hold the foremost tag of the pack of tags straight across the table 6 and the arm 29 conforms to the inclination of the rear end of the pack of tags. The free end of the arm 29 is engaged by the back rest plate 9, and as the back rest plate 9 is gradually and automatically fed forwardly, the arm 29 is pushed forwardly and swung on its pivot or hinge pin 26 to feed the pack of tags forwardly. This arrangement is of prime importance as, as the arm 29 is swung forwardly, the angle thereof will gradually change relative to the guides 14 and 15 and conform to the angle of the rear end of the pack T as the tags are removed therefrom. As shown in dotted lines in Figure 1, when the arm 29 reaches its foremost position, the same is parallel with the few tags remaining in the pack.

From the foregoing description, it can be seen

that we have provided an exceptionally simple and durable attachment which can be quickly and easily applied to the magazine of the printing press for efficiently feeding tags to the feeding arm of a printing press feeding mechanism.

Changes in details may be made without departing from the spirit or the scope of this invention, but what we claim as new is:

1. A tag feeding attachment for the sheet feeding mechanism of a printing press comprising a bracket, an attaching head on the rear end of the bracket, a forwardly extending rod on the bracket, a hinge plate slidably mounted on the rod, spring means on said rod normally urging the hinge plate forwardly on said rod, adjustable stops on the rod for limiting the forward movement of the hinge plate under influence of the spring, and a horizontally disposed tag engaging arm hingedly connected at one end to said hinge plate adapted to extend in rear of and across the tags, the other end of said arm being free for engagement with the back rest supporting plate of the sheet feeding mechanism.

2. A tag feeding attachment for the sheet feeding mechanism of a printing press comprising a bracket, an attaching head on the rear end of the bracket, a forwardly extending rod on the bracket, a hinge plate slidably mounted on the rod, spring means on said rod normally urging the hinge plate forwardly on said rod, adjustable stops on the rod for limiting the forward movement of the hinge plate under influence of the spring, and a horizontally disposed tag engaging arm hingedly connected at one end to said hinge plate, said arm including upper and lower spaced leaves, said leaves being free at one end for engagement with the back rest supporting plate of the sheet feeding mechanism.

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