Oct. 9, 1934. J. R. BLAINE 1,975,764

SHEET DELIVERY MECHANISM

Filed April 19, 1929 2 Sheets-Sheet 1

Fig. 1

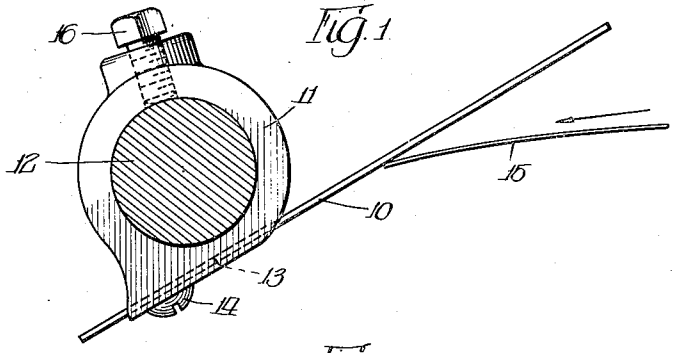


Fig. 2

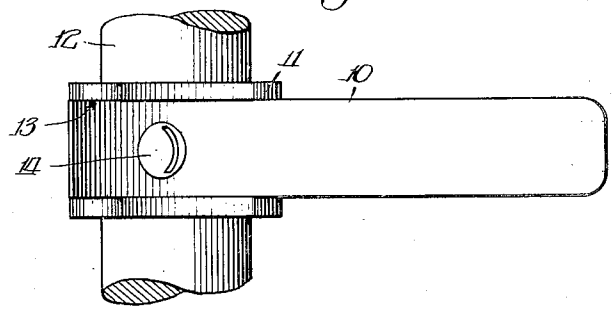


Fig. 3.

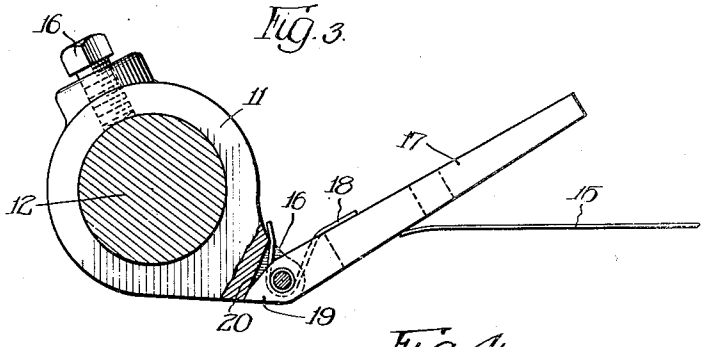
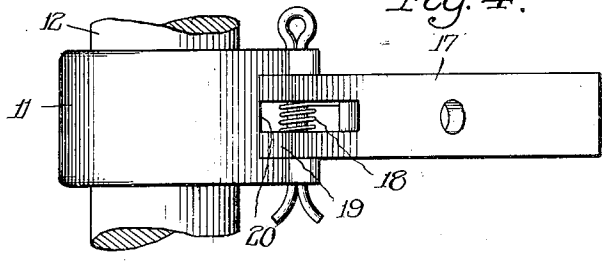


Fig. 4.



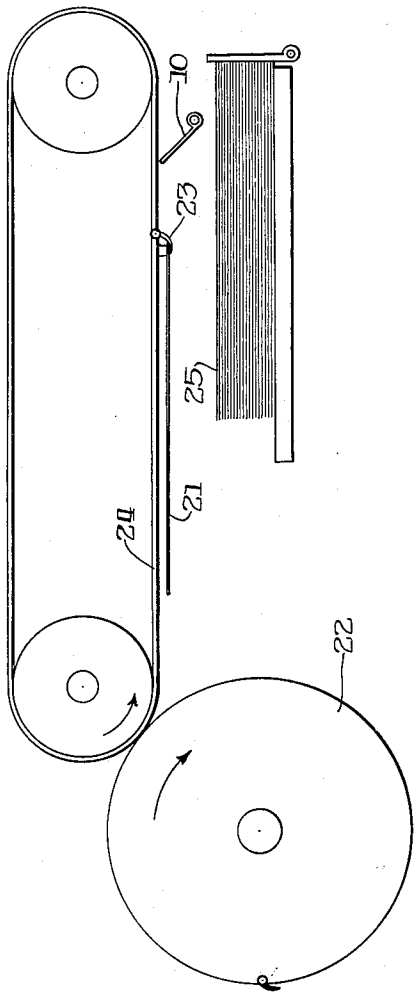
Inventor:
Joseph R. Blaine,
By Wilkinson Huxley Byron & Knight
Attys.

Oct. 9, 1934. J. R. BLAINE 1,975,764

SHEET DELIVERY MECHANISM

Filed April 19, 1929 2 Sheets-Sheet 2

Fig. 5.



Inventor:
Joseph R. Blaine
By Wilkinson Huxley Byron & Knight Attys

Patented Oct. 9, 1934 1,975,764

UNITED STATES PATENT OFFICE

1,975,764

SHEET DELIVERY MECHANISM

Joseph R. Blaine, Oak Park, Ill., assignor to The Miehle Printing Press and Manufacturing Company, Chicago, Ill., a corporation of Illinois

Application April 19, 1929, Serial No. 356,355

3 Claims. (Cl. 271—79)

This invention relates to improvements in stripper fingers such as are used in sheet delivery mechanism of printing presses and other sheet handling machinery.

Stripper fingers are arranged in the path of movement of the sheets to be delivered. Usually they are mounted in a position above the sheet receiving means so that when the sheets are released by the delivery mechanism, the leading edge of the sheets will be deflected against the stripper fingers in order to primarily break the velocity of the sheets, and then to direct them downwardly onto the board, so that they will form an even pile on said board.

Heretofore, as is well known in the art, stripper fingers were made of rigid pieces of wire or strips of metal such as flat springs of substantial thickness secured to a supporting shaft or the like mounted above the sheet receiving means.

It occurs frequently that the operator of a sheet handling machine has to remove some of the sheets deposited on the delivery board, without, however, wishing to interrupt the operation of the delivery mechanism. Furthermore, it becomes necessary at times for the operator to straighten out some sheets of the delivered pile which were not properly placed in position by the jogging mechanism. In both instances, the operator has to pass his hands between the stripper fingers and the deposited sheets and in doing so, it frequently happens that the operator's hand is caught between said fingers and some moving parts of the delivery mechanism, resulting in injury.

Sometimes, during the operation of a sheet handling machine, delivery stripper fingers are accidentally moved into the path of the delivery grippers, thereby causing damage to the delivery mechanism.

It is therefore the primary object of my invention to eliminate such accidents and to avoid damage of the nature pointed out above.

I accomplish this purpose by providing stripper fingers which are made of resilient material such as fiber or any other suitable substance which will readily yield or break and not injure the hand of an operator nor damage any part of the sheet delivering mechanism.

A modified form of my improved stripper fingers comprises a resiliently mounted strip of metal which will offer adequate resistance to direct a sheet of material onto the delivery board but which will yield sufficiently to render impossible any such accidents as hereinabove indicated.

I have selected to illustrate two practical designs of stripper fingers on the accompanying drawings, in which

Figure 1 is a side view of a stripper finger made of fiber or of any other resilient or fragile material;

Figure 2 is a view taken from below that shown in Figure 1;

Figure 3 is a partial fractional view of a modified form comprising a resiliently mounted stripper finger made of metal; and

Figure 4 is a view taken from below that of Figure 3;

Figure 5 is a diagrammatic view of a delivery mechanism to which my invention may be applied.

According to the design illustrated in Figures 1 and 2 of the drawings, the resilient stripper finger 10, consisting of fiber or of any other suitable material, preferably having a limited degree of resiliency, is secured to a bracket 11 mounted on a supporting shaft 12. To avoid lateral displacement of the finger 10, I provide a shallow recess 13 within which the end of the resilient finger is secured by means of a screw 14.

It will be readily understood that, depending on the dimension and weight of the sheets 15 to be delivered, the lateral position of the stripper fingers, and also their angle relative to the delivery table onto which the sheets 15 are to be deposited, has to be changed. Accordingly, the bracket 11 is slidably mounted on the shaft 12 so that it can be readily adjusted to any desired position and angle by loosening the set screw 16.

Referring to the modified form of stripper fingers illustrated in Figures 3 and 4, the bracket 11 is provided with an extension 16 to which a metal strip or finger 17 is pivoted. In this form of construction, the metal finger 17 is resiliently held against the pressure of a spring 18 and its operative position is determined by means of a stop lug 19 which cooperates with an abutment 20 provided on the bracket 11.

In Figure 5 of the drawings the improved stripper is illustrated diagrammatically as applied to a well-known type of delivery mechanism. The sheet 21 which has been taken from the impression cylinder 22 by the grippers 23 of the traveling sheet conveyor 24, and which is to be deposited onto the delivery pile 25, is shown as being advanced toward the stripper 10. Shortly before the leading edge of the sheet 21 reaches the stripper 10, the grippers 23 open and release the sheet. The leading edge of the released sheet will then impinge against the stripper 10 and

the sheet will be deflected downwardly onto the pile 25.

While for the purpose of illustrating my invention I have shown two forms of stripper fingers, it will be readily understood that other modifications could be applied without departing from the scope of the appended claims.

I claim:

1. In sheet delivery mechanism of the class described for handling sheet material which is to have its direction of movement deflected, the arrangement of stripper fingers lying in the path of movement of the sheets for deflecting the latter and consisting of resilient members adapted to yield readily for the purpose of protecting the operator against injury as hereinabove set forth.

2. In combination with mechanism of the class described for delivering sheets of material, a traveling sheet conveyor, a receiving table, and a resilient stripper extending above said table and into the path of the sheets to be delivered for deflecting the latter toward said table and away from said conveyor, said stripper being adapted to yield readily for the purpose of protecting the operator against injury as hereinabove set forth.

3. In combination with mechanism of the class described for delivering sheets of material, a traveling sheet conveyor, a receiving table, and an adjustably mounted resilient stripper finger extending above said table and into the path of the sheets to be delivered for deflecting the latter toward said table as they are released by said conveyor, said finger being adapted to yield readily for the purpose of protecting the operator against injury as hereinabove set forth.

JOSEPH R. BLAINE.