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A. DANZIGER

SHEET GUARD FOR PLATEN PRESSES

Filed Nov. 19, 1921

Fig. 1.

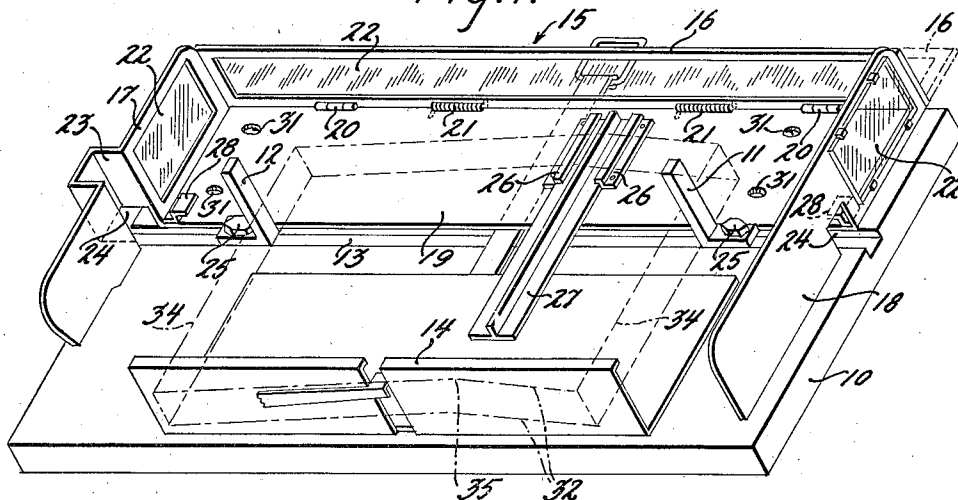
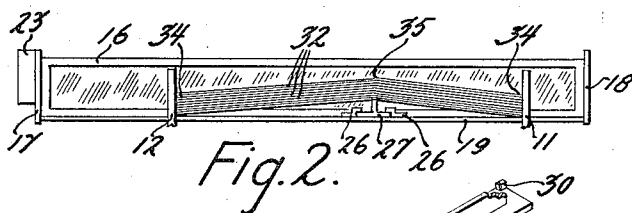


Fig. 2.

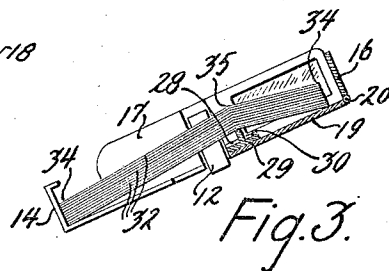


Fig. 3.

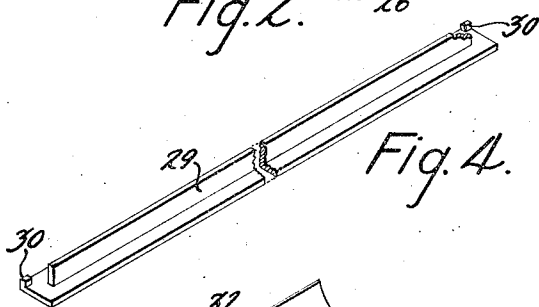


Fig. 4.

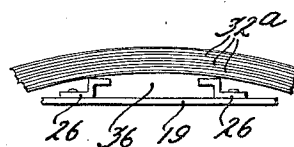
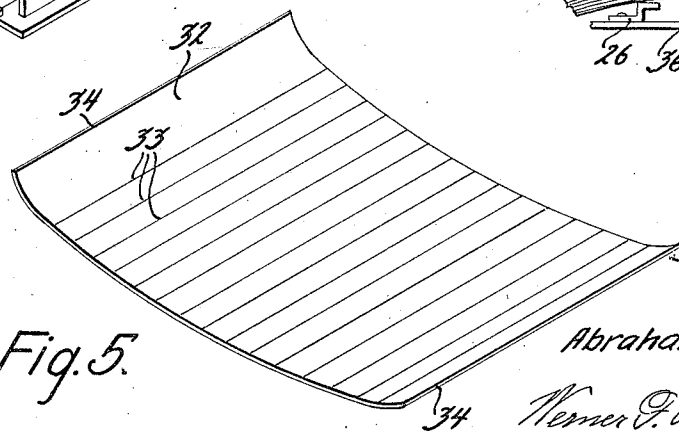


Fig. 6.

Fig. 5.



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SHEET GUARD FOR PLATEN PRESSES.

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To all whom it may concern:

Be it known that I, ABRAHAM DANZIGER, a citizen of the United States of America, residing at the city of New York, in the State of New York, have invented certain new and useful Improvements in Sheet Guards for Platen Presses, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, forming part of this specification.

My present invention relates to improvements in platen presses and more particularly to the class having automatic sheet feeding and delivering attachments, it is obvious though that my invention is applicable to other form of presses than those above mentioned.

One object of the invention is to provide a suitable sheet guard having novel and improved features and of such construction as to interrupt and deflect any air currents that may be generated by the motion of the various parts of the press or adjacent machinery which would tend to disturb the sheets upon the receiving platform.

Another object of the invention is to provide a sheet guard having novel and improved construction and of such form as to cause the sheets after being delivered from the press upon the platform, to lie in a manner so as to prevent circulating air currents from having access under the edges of the sheets and thereby disturbing them. This will be more fully described hereinafter.

It will be understood by those skilled in the art that after the sheets have passed through the press and received the impression of the type, they are deposited upon a platform by the delivery sticks, it is also well known that these superposed sheets are easily disturbed, particularly when of light gauge, by air currents generated by various causes, such as the revolving fly wheels; the passing by of an operator, or from the air under pressure used in connection with automatic feed devices of this kind. The sheets thus disturbed finding their way into the inking rollers, necessitating the stopping of the press and the subsequent loss of time of the operator in removing the same from the rollers. It is further understood by those skilled in the art that sheets having a series of rulings across them, tend to curl up at the edges parallel to said rulings, thus giving access to air currents between the sheets,

also that said curling prevents the sheets from properly abutting the straightening-pins or sheet-joggers.

With the present improvements it is possible to double the speed of the press without disturbing the sheets by the increased velocity of air currents thus generated, thereby doubling the daily output of the press.

To these and other ends, the invention consists in certain improvements and the combinations and arrangements of parts, all as will be more fully hereinafter described, the features of novelty being pointed out particularly in the claims at the end of the specification.

In the drawings:—

Figure 1 is a perspective view looking from the back or platen side of the press, of my improved sheet guard mounted on the receiving platform.

Figure 2 is a longitudinal edge view of the sheet guard on a smaller scale than Figure 1.

Figure 3 is a transverse section of the sheet guard on a smaller scale than Figure 1.

Figure 4 is a detail perspective view of the longitudinal rail or rib portion shown in Figure 3.

Figure 5 is a perspective view of a ruled sheet showing the curled edges parallel with the rulings.

Figure 6 is an edge view of the guides illustrated in Figure 1 showing how the sheets may be manually lifted with ease due to the guides spacing them from the floor portion.

In the present instance 10 designates the platen press platform which serves to receive the delivered sheets, 11 and 12 are the straightening-pins or sheet-joggers which are adjustable along the slot 13. The pin 12 oscillates as the sheets are delivered on the platform and moves them over against the pin 11. 14 designates an aligning plate against which the sheets are straightened by gravity. The parts so far described are standard structure.

On the platform 10 I secure in any suitable manner a guard 15, having an upwardly disposed longitudinal end wall 16, and side walls 17, 18 disposed at right-angles to the wall 16, and a floor portion 19, the side walls 17, 18 are integral with the floor portion 19, the end wall 16 is pivotal on the hinges 20 secured to the floor portion 19, to

permit of the same being lowered to the position shown in broken lines, thus giving access to the sheets deposited within said guard 15, the torsion springs 21 keep the wall 16 in its normally upright position, the walls 16, 17, 18 have transparent portions 22 fitted into suitable openings in said walls, to permit the operator to view the interior from a nearby position, the side wall 17 has an offset portion 23 to permit the pin 12 to oscillate when set at the end of the slot 13, the walls 17, 18 are provided with cut out portions 24 to permit the offset portions on the pins 11, 12 with their set screws 25 to be moved to the extreme ends of the slot 13.

To the floor portion 19 I have secured in any suitable manner and disposed transversely thereof, the guides 26 which are adapted to frictionally engage and hold a rail or ribbed portion 27; also secured to the floor portion 19 are upstanding offset portions 28 adapted to engage and hold a longitudinally disposed rail or ribbed portion 29 shown in Figures 3 and 4, having lugs 30 which when the rail 29 is placed in the position shown in Figure 3, the lugs 30 will abut the portions 28 to prevent the rail 29 passing through them.

Perforations 31 may be made in the floor portion 19 to register with any oil holes in the platform 10.

As shown in Figure 5, 32 designates a sheet, having ruled lines 33, which cause the edges 34 to curl upwardly due to the imprint of the lines on the paper as heretofore described. To obviate this objectional feature the rail 27 is placed in position under the guides 26 as shown in Figures 1 and 2, when the rulings extend transversely of the sheet, or the rail 29 in Figures 3 and 4 is placed in position under the parts 28 when the rulings extend longitudinally of the sheet, this will cause the sheets 32 when deposited upon said rails 27 or 29 to bulge up at 35 as shown in Figures 1, 2 and 3 and cause the edges 34 to lie flat.

In Figure 6 I have shown further utility of the rails 26 in which a pack of sheets 32^A, without rulings may be easily and quickly raised from the floor portion 19 by inserting a finger in the space 36, the rail 27 not being used in this case.

The above described sheet guard may be constructed of any suitable material and the walls 16, 17, 18 of such height as to interrupt and deflect any air currents circulating about the platform 10 and the guard 15.

Variations may be resorted to within the scope of the invention and portions of the improvements may be used without the others.

Having thus described my invention, I claim:

1. A guard of the character described and for the purpose specified adapted to rest

upon the sheet receiving platform of a printing press so as to prevent air currents from dislodging the sheets therein contained and other means associated with said guard, and adapted to be disposed either longitudinally or transversely thereof so as to prevent the sheets from curling at the edges.

2. In a printing press having a sheet receiving platform, the combination of a guard upon said platform comprising means adapted to prevent air currents from displacing the sheets therein contained and other means associated with said guard and adapted to be disposed either longitudinally or transversely thereof so as to underlie the sheets in a manner to prevent said sheets from curling at the edges.

3. In a printing press having a sheet receiving platform, the combination of a guard upon said platform comprising upstanding walls, some of said walls being integral with a floor portion and adapted to receive the sheets therein in a manner so as said guard will prevent the sheets from being disturbed by circulating air currents, and other means associated with said guard and adapted to be removably secured to said floor portion in a manner so as to underlie the sheets to prevent said sheets from curling at the edges.

4. In a platen press having a sheet receiving platform, the combination of a guard on said platform, said guard comprising a floor portion and upwardly extending walls having transparent portions therein, one of said walls and adapted to be moved from a normally closed position to an open position, means for retaining said wall in a closed position, all of said walls adapted to interrupt and deflect air currents, to prevent said air currents from displacing the sheets contained within said guard on said platform and other means associated with said guard to cause sheets deposited therein to assume a position so that the edges of said sheets will remain in close contact.

5. In a platen press having a sheet receiving platform, the combination of a guard on said platform, said guard comprising a floor portion, a ribbed portion disposed transversely thereof and adapted to underlie the sheets, means on said floor portion to engage said ribbed portion to hold the same in effective relation therewith and upwardly extending walls having transparent portions therein, one of said walls adapted to be moved from a normally closed to open position, all of said walls adapted to interrupt and deflect air currents, to prevent said air currents from displacing the sheets contained within said guard.

6. In a platen press having a sheet receiving platform, the combination of a guard on said platform, said guard comprising a floor portion, a ribbed portion disposed lon-

gitudininally thereof and adapted to underlie the sheets, means on said floor portion to engage said ribbed portion to hold the same in effective relation therewith and upwardly extending walls having transparent portions, one of said walls having pivotal connection with said floor portion, all of said walls adapted to interrupt and deflect air currents to prevent said air currents from displacing the sheets contained within said guard.

7. In a platen press, having a sheet receiving platform, the combination of a guard on said platform, said guard comprising a floor portion, ribbed portions adapted to be disposed transversely or longitudinally thereof, said ribbed portions adapted to underlie the sheets, means for holding either one of said ribbed portions in effective relation with said floor portion, means on said floor portion to give access under the sheets to permit of manually removing said sheets from the guard, and upwardly extending walls having transparent portions, one of said walls pivotally connected to said guard,

all of said walls adapted to interrupt and deflect air currents to prevent said air currents from displacing the sheets contained within said guard.

8. In a platen press having a sheet receiving platform, the combination of a guard on said platform, said guard comprising a floor portion, detachable ribbed portions disposed transversely or longitudinally thereof, each of said ribbed portions adapted to underlie the sheets, means for frictionally engaging said ribbed portions to hold the same in effective relation with said guard, and a plurality of upwardly extending walls connected to said floor portion and having transparent portions, one of said walls pivotally connected to said floor portion, all of said walls adapted to interrupt and deflect air currents to prevent said air currents from displacing the sheets contained within said guard.

Signed at New York in the county of New York and State of New York this 17th day of November A. D. 1921.

ABRAHAM DANZIGER.