C. E. SHREFFLER.

PRINTING PRESS ATTACHMENT.

APPLICATION FILED FEB. 1, 1917.

1,237,396.

Patented Aug. 21, 1917.

3 SHEETS—SHEET 1.

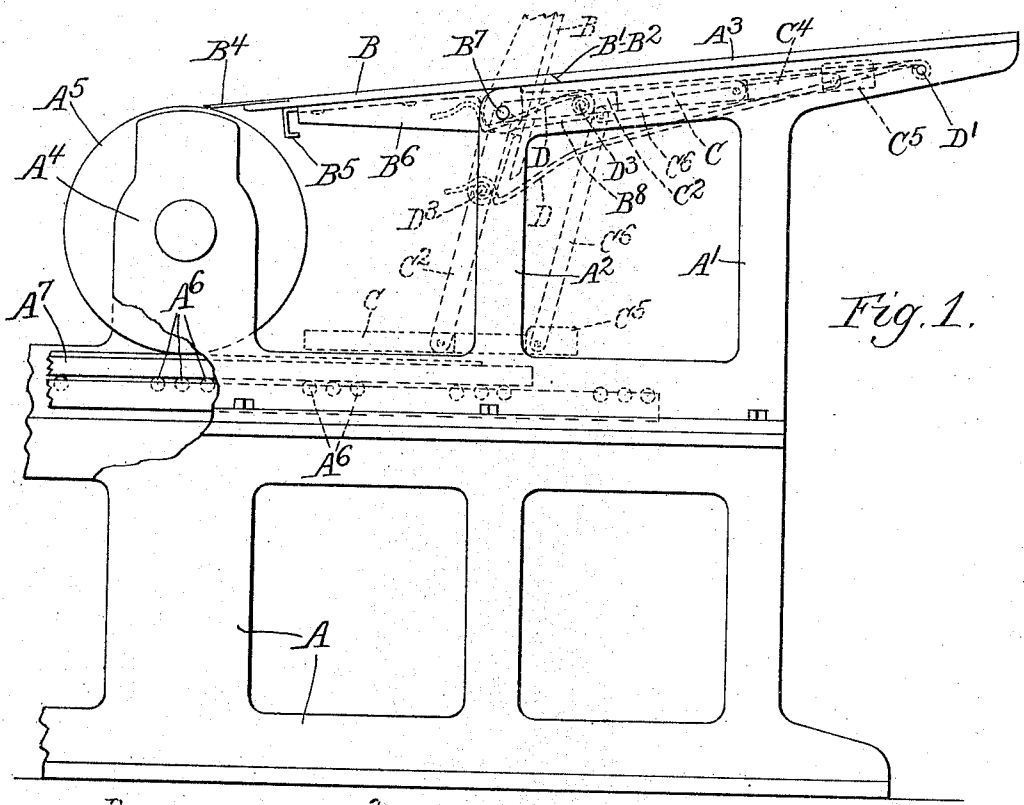


Fig. 1.

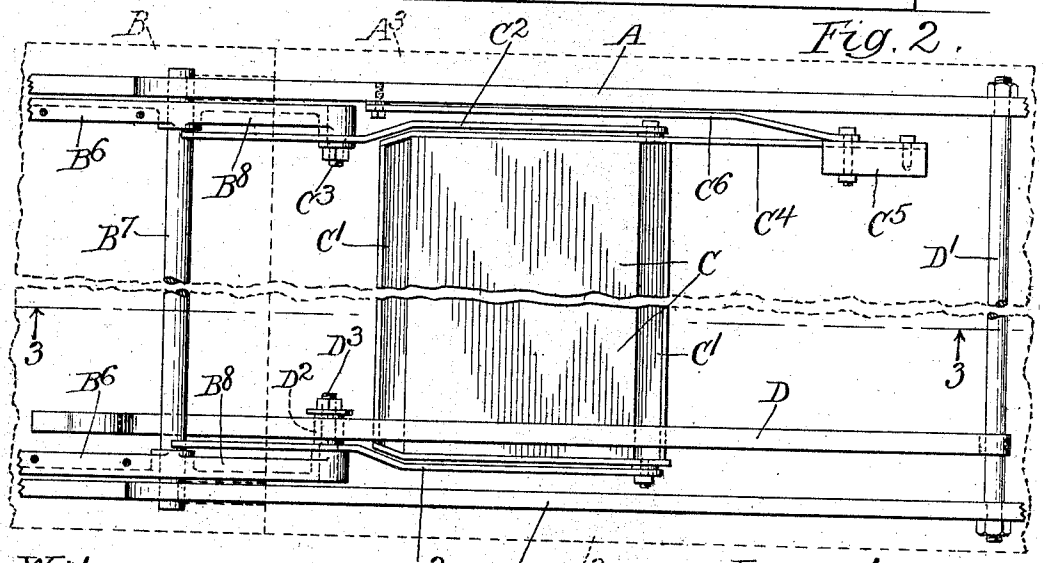


Fig. 2.

Witnesses.
Edward T. Wray.
Marion Ingraham

Inventor.
Clarence E. Shreffler.
by Parker & Burton
Attorneys.

C. E. SHREFFLER.

PRINTING PRESS ATTACHMENT.

APPLICATION FILED FEB. 1, 1917.

1,237,396.

Patented Aug. 21, 1917.

3 SHEETS—SHEET 2.

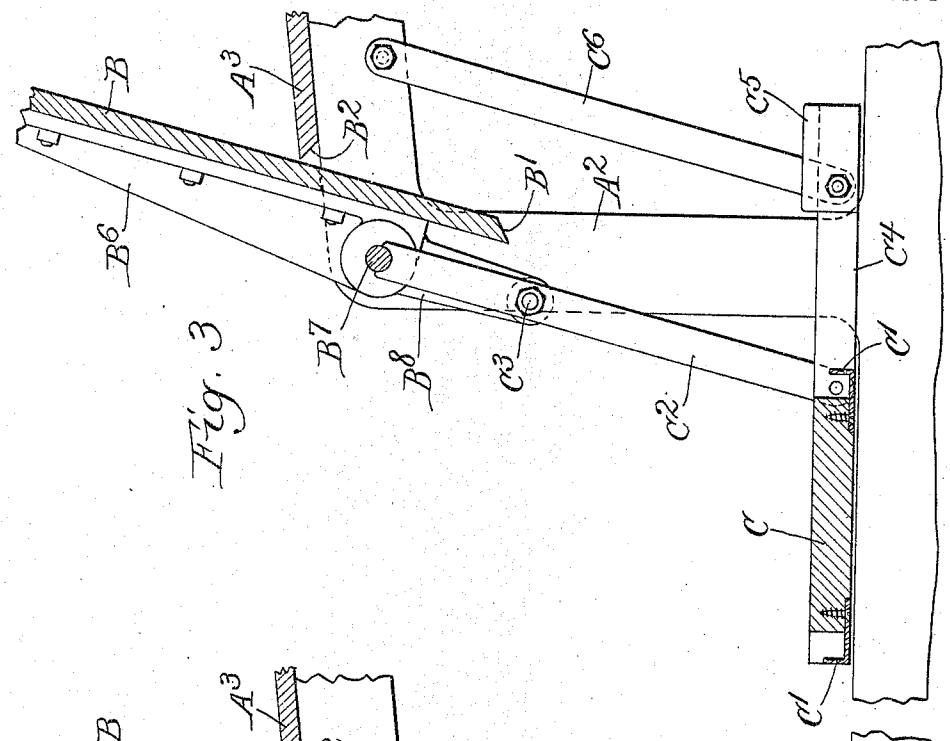


Fig. 3

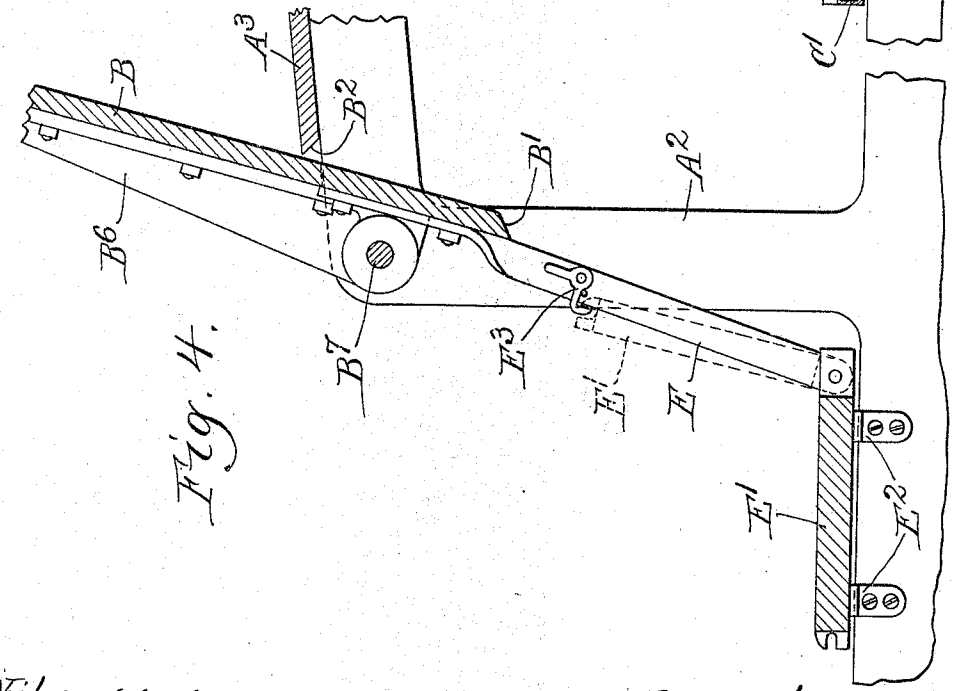


Fig. 4.

Witnesses.
Edward F. Wray.
Marion Ingraham

Inventor
Clarence E. Shreffler.
by Parks & Carter
Attorneys.

C. E. SHREFFLER.

PRINTING PRESS ATTACHMENT.

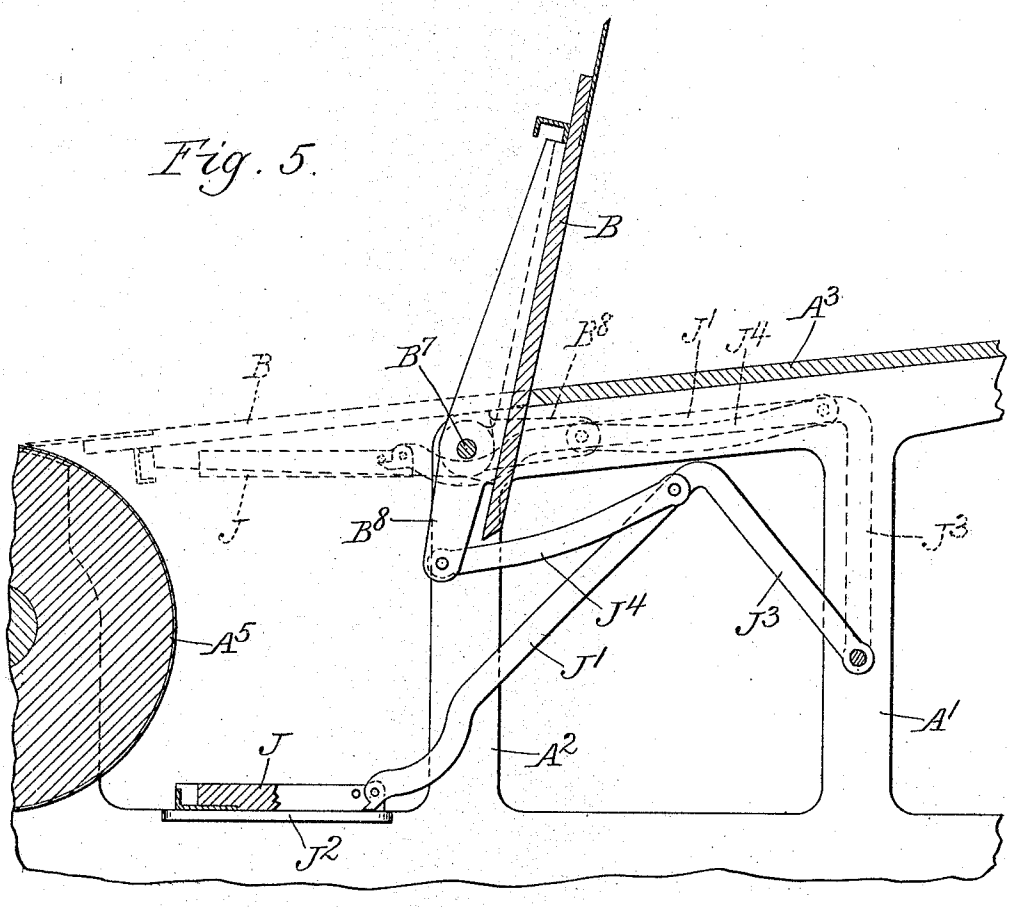
APPLICATION FILED FEB. 1, 1917.

1,237,396.

Patented Aug. 21, 1917.

3 SHEETS—SHEET 3.

Fig. 5.



Witnesses.
Edward F. Wray.
Marion Ingraham.

Inventor
Clarence E. Shreffler.
by Parker & Carter
Attorneys.

UNITED STATES PATENT OFFICE.

CLARENCE E. SHREFFLER, OF CHICAGO, ILLINOIS.

PRINTING-PRESS ATTACHMENT.

1,237,396. Specification of Letters Patent. Patented Aug. 21, 1917.

Application filed February 1, 1917. Serial No. 145,869.

To all whom it may concern:

Be it known that I, CLARENCE E. SHREFFLER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Printing-Press Attachments, of which the following is a specification.

My invention relates to improvements in printing presses and has for one object to provide a new and improved device which will effectively protect the roller bed of a printing press from dirt, dust and the like from the feet of the men operating the press. Another object is to provide a new and improved scaffolding or platform upon which the men may stand while working on the press. Another object is to provide a device for protecting the operator against danger in case the press should be put in operation while he is working on it. Other objects will appear from time to time in the specification.

I have illustrated my invention more or less diagrammatically in the accompanying drawings wherein—

Figure 1 is a side elevation of a part of the press with parts omitted illustrating my invention;

Fig. 2 is a plan view on an enlarged scale of part of the structure shown in Fig. 1;

Fig. 3 is a section along the line 3—3 of Fig. 2;

Fig. 4 is a section along a similar line showing however, a modified form.

Fig. 5 is a section through a further modified form.

Like parts are indicated by like characters in the drawings.

A is the base of a press. It carries the upwardly projecting supporting frame members A^1 A^2 which carry a fixed table A^3. The base A also carries bearings A^4 in which the platen roller A^5 is rotatably mounted. This platen roller is of the ordinary type and driven by any suitable means not here specifically illustrated. A^6 A^6 are roller bearings on the base A, and A^7 is the form bed adapted to travel back and forth upon such roller bearings beneath the platen roller the arrangement being such that when a paper is carried around the platen roller in unison with the reciprocation of the form bed impression is made by the form on the bed on the paper.

B is a pivoted table pivoted on the table A^3. It is mitered as at B^1 to engage the mitered portion B^2 of the table A^3 so as to make a continuous smooth surface leading down toward the platen roller, B^4 being a flange or lip extending beyond the end of the table toward and in close proximity to the periphery of the platen roller. B^5 is a reinforcing channel connecting the supporting arms B^6. These arms are pivoted on a pivot bar B^7 which is supported on the members A^1 A^2. The arms B^6 are provided with levers B^8 which are provided on the press before my invention is applied to it for the purpose of carrying counterbalances which counterbalance the weight of the table. For the purpose of applying my invention, these counterbalances are first removed.

C is a platform or scaffold adapted to extend across the press above the form bed. It is a little shorter than the inside distance between the frame members, carries along either edge an angle C^1 upwardly extended and removed from the edge of the platform for the purpose of forming the gutter or trough to catch grit, dust and dirt and the like which may be scraped off on the platform by the feet of the operator and to prevent such materials from being dropped down on top of the press where it might damage the rollers and other parts. C^2 C^2 are supporting arms pivoted each to one end of the platform adjacent its rear edge. These arms extend up from the platform C to engage the pivot bar B^7 and are attached intermediate the other ends by means of the bolts C^3 D^3 to the arms B^6 so that they are held in parallelism with the table member B. Extending rearwardly from the foot board C is a rigid lever C^4 provided at its outermost end with the counterbalance C^5. C^6 is a link pivoted on the lever adjacent the counterbalance at one end and pivoted on the frame member at the other end, the function of this link being, of course, to insure that the foot board, when the folding table is turned up, will assume a position in substantial parallelism with the top of the form bed and be held in position above the form bed so that it may reciprocate back and forth beneath the board without interfering with the operator standing upon it.

It will be noted by reference to Fig. 3 that when in a working position the platform is moved forward beyond its center of suspension and so when a weight is placed upon it there is a tendency to swing back in a

counter-clockwise direction. This tendency is resisted by the latch member D pivoted on the tie rod D^1 adapted to engage the roller D^2 on the bolt D^3. This latch is so arranged that when the press is printing and the foot board is folded up out of the way, this latch member overlies the board and does not interfere in any way with its assuming the position shown in dotted lines in Fig. 1.

In Fig. 4 is shown a modified form. The arms E project downwardly from the rear side of the movable part of the table and carry pivoted upon them a foot board E^1 adapted to rest upon supports E^2 in Fig. 4 adapted to be held in position as shown in dotted lines by the latch E^3.

It will be evident that while I have shown in my drawings an operative device, still many changes might be made in size, shape and arrangement of parts without departing materially from the spirit of my invention and I wish therefore that my drawings be regarded as diagrammatic.

In the modified form shown in Fig. 5 the working platform J is hinged on the ends of a pair of arms J^1 so that when in the lower position shown in full lines the platform rests on the stops or abutments J^2 on the press frame. As the arms J^1 rotate upwardly, the platform J rotates downwardly with respect to them a short distance until it comes to a stop as shown when the arms and the platform rotate together until the arm brings the working platform into a position immediately beneath the feeding table. Each arm J^1 is provided with an elbow extension as indicated at J^3 pivoted on the frame and adapted to be rotated by means of a link J^4 attached to the arm B^8.

This device, is not, of course, as satisfactory as in the preferred form because the board itself is not automatically put in position. The operator, if he is in a hurry, may forget or neglect to release the catch E^3 and allow the board to drop down and thus the bearings and operator are neither of them protected.

The use and operation of my invention are as follows:

When the press is at work the parts are in the position shown in full lines in Fig. 1. The operator stands at one side of the press and feeds the paper down along the table to the platen roll which catches the sheet and carries it around between itself and the form. This process continues until the sheet is done and needs no further explanation.

When the press is being set up for a new run the forward part of the table is tipped up so that the operator can get in between the platen roller and the other parts. He has to do this because it sometimes becomes necessary to build up the packing on the platen roll at one point or another so as to insure a clean impression. If no means are provided the operator will step in on the bearings carrying with him on his shoes the dirt and dust from the press room floor and upon starting the press at a later period this dirt and dust will be ground into the bearings causing rapid wear and unsatisfactory operation. In order to guard against this, I have provided my automatic foot board and it hangs on the same pivot as the table, thus when the table goes up the board comes down and is latched in position where it protects the bearings from the operator and gives him a solid and firm platform upon which to stand. If for any reason it is desired to cause the form bed to reciprocate this can be done because the platform is raised sufficiently above the bed to afford clearance. When the operator wishes to start the press again he releases the catch and permits the table to drop down. The weight of the board serves as a counterbalance for the table and does not increase the difficulty of operation. The gutters or channels along the sides of the board catch the material and may be cleaned any suitable time with a brush or the like and the bearings are thus further protected.

Obviously this device operates also as a safeguard to the men because if they were standing below on the bearings in the path of the movable form bed and if the press were started they would be caught between the form bed and the platen roller.

I claim:

1. The combination with a press comprising a platen roller, a form bed adapted to reciprocate beneath the roller, bearings therefor, a feeding table and a pivoted extension therefor, of a working platform and means for bringing it in and holding it in position above the bearings and between the table and roller.

2. The combination with a press comprising a platen roller, a form bed adapted to reciprocate beneath the roller, bearings therefor, a feeding table and a pivoted extension therefor, of a working platform and means for bringing it in and holding it in position above the bearings and between the table and roller said means being operative and responsive to the movement of the feeding table extension upon its pivoted axis.

3. The combination with a press comprising a platen roller, a form bed adapted to reciprocate beneath the roller, bearings therefor, a feeding table and a pivoted extension therefor, of a working platform, supporting members therefor projecting rearwardly from the pivoted extension and mounted thereon and means additional to said supporting members for holding said working platform in substantial parallelism with the line of movement of the form bed.

4. The combination with a press comprising a platen roller, a form bed adapted to reciprocate beneath the roller, bearings therefor, a feeding table and a pivoted extension therefor, of a working platform, supporting members therefor projecting rearwardly from the pivoted extension and mounted thereon and means additional to said supporting members for holding said working platform in substantial parallelism with the line of movement of the form bed said means comprising a lever extending rearwardly from the working platform and a link pivoted at one end on the lever and at the other end on the feeding table.

5. The combination with a press comprising a platen roller, a form bed adapted to reciprocate beneath the roller, bearings therefor, a feeding table and a pivoted extension therefor, of a working platform, supporting members therefor projecting rearwardly from the pivoted extension and mounted thereon and means additional to said supporting members for holding said working platform in substantial parallelism with the line of movement of the form bed, said means comprising a lever extending rearwardly from the working platform and a link pivoted at one end on the lever and at the other end on the feeding table, together with a counter-balance weight mounted on the free end of said lever to assist in counterbalancing the weight of the pivot extension.

6. The combination with a press comprising a platen roller, a form bed adapted to reciprocate beneath the roller, bearings therefor, a feeding table and a pivoted extension therefor, of means for counter-balancing the pivoted feeding table extension comprising a working platform and means for automatically moving said platform in an operating position over the form bed bearings when the extension is rotated about its axis into inoperative position.

7. The combination with a press comprising a platen roller, a form bed adapted to reciprocate beneath the roller, bearings therefor, a feeding table and a pivoted extension therefor, of a working platform, and means for automatically moving it in and holding it in a position between the platen roller and the feed table and slightly above the path of the form bed when the extension is rotated about its axis out of its operating position.

8. The combination with a press comprising a platen roller, a form bed adapted to reciprocate beneath the roller, bearings therefor, a feeding table and a pivoted extension therefor, of a working platform, and means for bringing it in and holding it in position above the bearings and between the table and roller by movement of said pivoted extension, open trough members arranged along the opposed sides of the working platform and separated therefrom to catch the material scraped from the shoes of the operators as they stand upon and move about on the working platform.

9. The combination with a press comprising a platen roller, a form bed adapted to reciprocate beneath the roller, bearings therefor, a feeding table and a pivoted extension therefor, of a working platform and means for automatically moving it in and holding it in a position between the platen roller and the feed table and slightly above the path of the form bed when the extension is rotated about its axis out of its operating position, open trough members arranged along the opposed sides of the working platform and separated therefrom to catch material scraped from the shoes of the operators as they stand upon and move about on the working platform.

10. The combination with a press comprising a platen roller, a form bed adapted to reciprocate beneath it, bearings therefor and a two part feeding table, one of said parts being adapted to be moved away from its operative position to permit adjustment of the press, of an ample working platform and means for automatically bringing it into an operating position when one part of the feeding table is moved away from its operating position.

11. The combination with a press comprising a platen roller, a form bed adapted to reciprocate beneath it, bearings therefor and a two part feeding table, one of said parts being adapted to be moved away from its operative position to permit adjustment of the press, of an ample working platform and means for automatically bringing it into an operating position when one part of the feeding table is moved away from its operating position, said means being adapted to bring the working platform up into a position immediately beneath the feed table when the feed table is in its operating position.

12. The combination with a press comprising a platen roller, a form bed adapted to reciprocate beneath it, bearings therefor and a two part feeding table, one of said parts being adapted to be moved away from its operative position to permit adjustment of the press, of an ample working platform and means for automatically bringing it into an operating position when one part of the feeding table is moved away from its operating position said means comprising a series of supporting levers for the working platform and a driving connection between such levers and the table.

13. The combination with a press comprising a platen roller, a form bed adapted to reciprocate beneath it, bearings therefor and a two part feeding table, one of said parts being adapted to be moved away from

its operative position to permit adjustment of the press, of an ample working platform and means for automatically bringing it into an operating position when one part of the feeding table is moved away from its operating position, said means being adapted to bring the working platform up into a position immediately beneath the feed table when the feed table is in its operating position, said means comprising a series of supporting levers for the working platform and a driving connection between such levers and the table.

14. The combination in a press having a platen roller and a form bed mounted for reciprocation in coöperation therewith, of a feeding table above the form bed having a pivoted extension, a working platform and means responsive to the rotation of the pivoted extension away from the platen for automatically moving such working platform into position adjacent the platen.

15. The combination in a press having a platen roller and a form bed mounted for reciprocation in coöperation therewith, of a feeding table above the form bed having a pivoted extension, a working platform and means responsive to the rotation of the pivoted extension away from the platen for automatically moving such working platform in the position adjacent the platen said working platform being when in the position adjacent the table supported above the form bed.

16. The combination in a press having a platen roller and a form bed mounted for reciprocation in coöperation therewith, of a feeding table above the form bed having a pivoted extension, a working platform and means responsive to the rotation of the pivoted extension away from the platen for automatically moving such working platform in the position adjacent the platen and adapted when in the inoperative position to lie immediately beneath the working table and far removed from the platen and the form bed.

17. The combination in a press having a platen roller and a form bed mounted for reciprocation in coöperation therewith, of a feeding table adjacent the form bed having a pivoted extension, a working platform and means responsive to the rotation of the pivoted extension away from the platen for automatically moving such working platform in the position adjacent the platen said working platform being when in the position adjacent the table supported above the form bed and adapted when in the inoperative position to lie immediately beneath the working table and far removed from the platen and the form bed.

In testimony whereof, I affix my signature in the presence of two witnesses this 24th day of January, 1917.

CLARENCE E. SHREFFLER.

Witnesses:
R. N. LLOYD,
W. J. COPP.