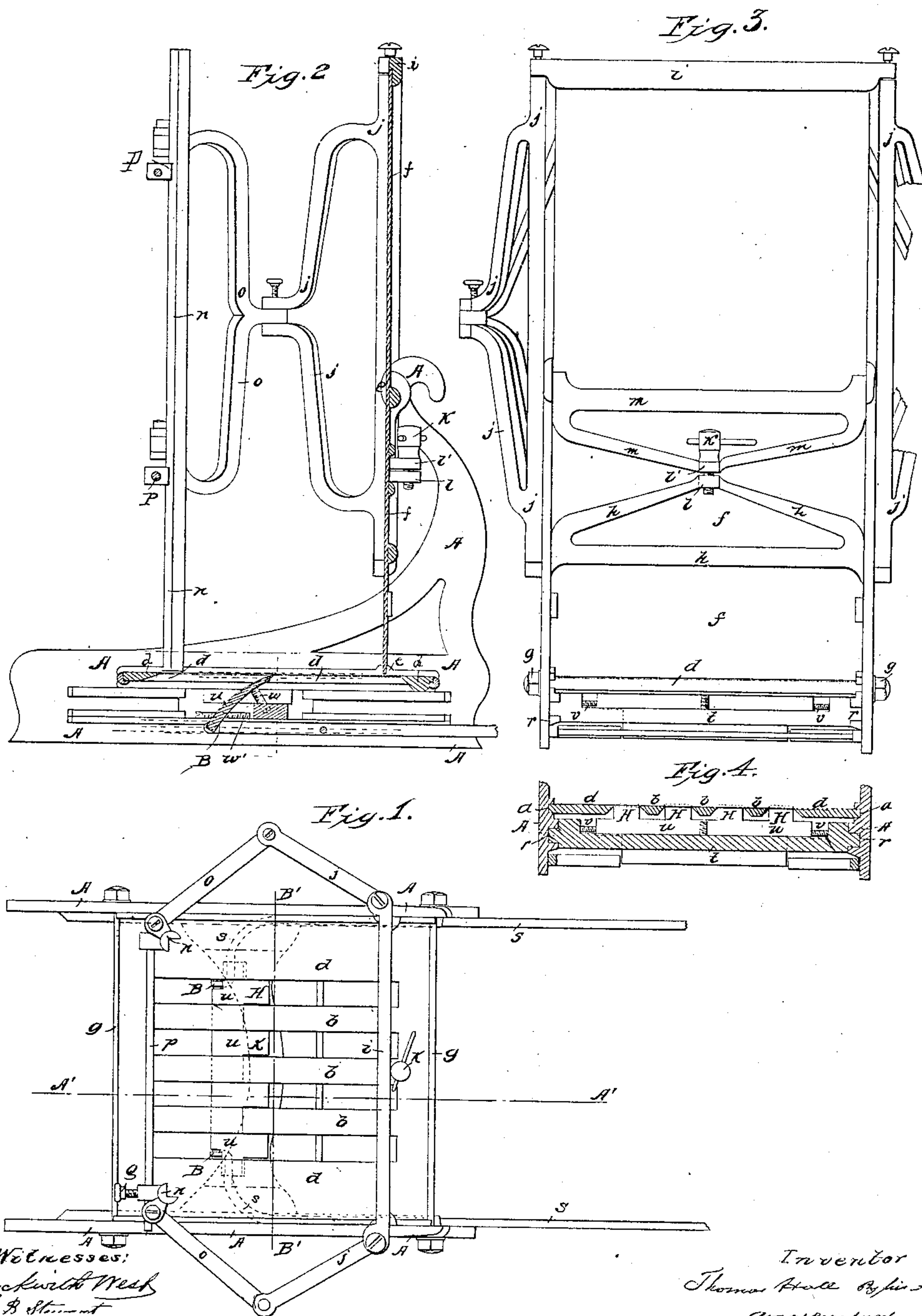


T. HALL.
PRINTING PRESS FEEDER.

No. 29,485.

Patented Aug. 7, 1860.



UNITED STATES PATENT OFFICE.

THOMAS HALL, OF ST. LOUIS, MISSOURI.

FEEDING APPARATUS FOR PRINTING-PRESSES.

Specification of Letters Patent No. 29,485, dated August 7, 1860.

To all whom it may concern:

Be it known that I, THOMAS HALL, of the city of St. Louis and State of Missouri, have invented a new and Improved Feed-
5 ing-Machine for Printing-Presses; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawing, making part of this specification, in which—

10 Figure 1 is a top view of my said invention; Fig. 2 a vertical section through the line A'; Fig. 3 a back elevation, and Fig. 4 a transverse section through the line B', thereof.

15 To enable others skilled in the art to which my invention appertains to make and use the same I will proceed to describe the construction and operation thereof.

Similar letters of reference represent corresponding parts of the drawing.

20 In constructing my improved feeding apparatus, I first make the frame A A of the form shown upon the drawing or of such other form as will best fill the conditions of
25 strength and convenience. The said frame consists of two thin, or flat pieces of metal, made with grooves and ribs on their insides, and with a kind of "goose neck" erected on one end thereof to receive the plates, and
30 other devices, which go to make up the different parts of the machine, the whole being united by means of bolts as will be more fully described herein.

35 One of the grooves, in the inside of the frame above referred to, is shown at *a a* Fig. 4. Into this groove I introduce the plate *d* which is made open, with slots and ribs, very much, in the form of a gridiron, the ribs being shown at *b b*. Another of the
40 grooves aforesaid are shown in the drawing by *e*. Into this groove I introduce the plate *f* which it will be seen sets at right angles with the plate *d*. The plate *d* after being adjusted to its proper position is secured by
45 means of the bolts *g g*, which also unite the lower part of the frame. The plate *f* I make adjustable, so that the lower end thereof can be adjusted to any given distance from the upper surface of the plate *d*. To make the
50 said plate adjustable, I fix against its back side a ribbed frame piece *h*, which is united to the top of the said plate, by means of the rib *i*, and the two side arms *j j*, and the said

frame piece *h* is united to the frame A by means of a screw *k*, which passes through a
55 projection *l* on the said frame piece into a corresponding projection *l'* on a second ribbed frame piece *m*, which unites the upper end of the main frame. Now the frame piece *h* being fixed to the plate *f* and the piece *m*
60 to the main frame, the screw *k* will, when turned, raise the plate *f* through the medium of the side arms *j j*.

The cards or other matter to be fed into the press are laid upon the gridiron plate *d*,
65 and against the plate *f* and are held there by means of binders which consist of the two bars *n n*, which are hinged to the side arms *j j* by means of corresponding arms *o o*, in the manner shown in Fig. 2. The said bars
70 *n n*, are connected to each other by means of the rods *p, p*, by which they are also adjusted, so as to bear on the matter proposed to be printed, the said bars being secured by means of adjusting screws *q*. In the inside
75 of the frame and under the gridiron plate *d* two grooves *r r* are made and in them a cross-head *t* is placed, which receives a reciprocating motion by the application of power to the shafts *s s*, which are united to
80 the said cross-head as will be hereafter explained.

In the cross-head *t* I arrange what I shall call a gripper *u*, which I arrange in the cross-head so as to vibrate around the
85 center screws *v v*, and which is made with tongues *x* on its upper edge to fit loosely between the bars of the gridiron plate *d*. Now the shafts *s s* are attached to the lower edge of the said gripper at B so that when
90 it is drawn forward the tongues rise between the bars of the plate *d* so as to catch a card from the pack resting on the said plate and when it is shoved back the said tongues fall below the upper surface of the said plate *d*
95 so as to clear the cards resting thereon. The distance the tongues of the gripper rise and fall above and below the surface of the gridiron plate is regulated by the adjusting screws *w' w*, the one of which is fixed in the
100 cross head and the other in the gripper.

To put the apparatus in operation, the pack of cards is first laid upon the plate *d* and the binding bars *n n* are then brought down upon it to hold it in position. The
105 plate *f* is then raised just far enough from

the plate *d* to allow one card to pass under it at the time. Then by shoving the gripper back and forth the cards are fed into the machine.

5 I claim as my invention—

1. The tongued, vibrating and reciprocating gripper *u*, in combination with the grid-iron plate *d*.

2. The use of the binding bars *nn* in combination with the plate *f*. 10

3. The manner of adjusting the plate *f*, described.

THOMAS HALL.

Witnesses:

C. E. GRAY,
ROBIN GRAY.