

M. R. LAND.  
PRINTING PRESS.

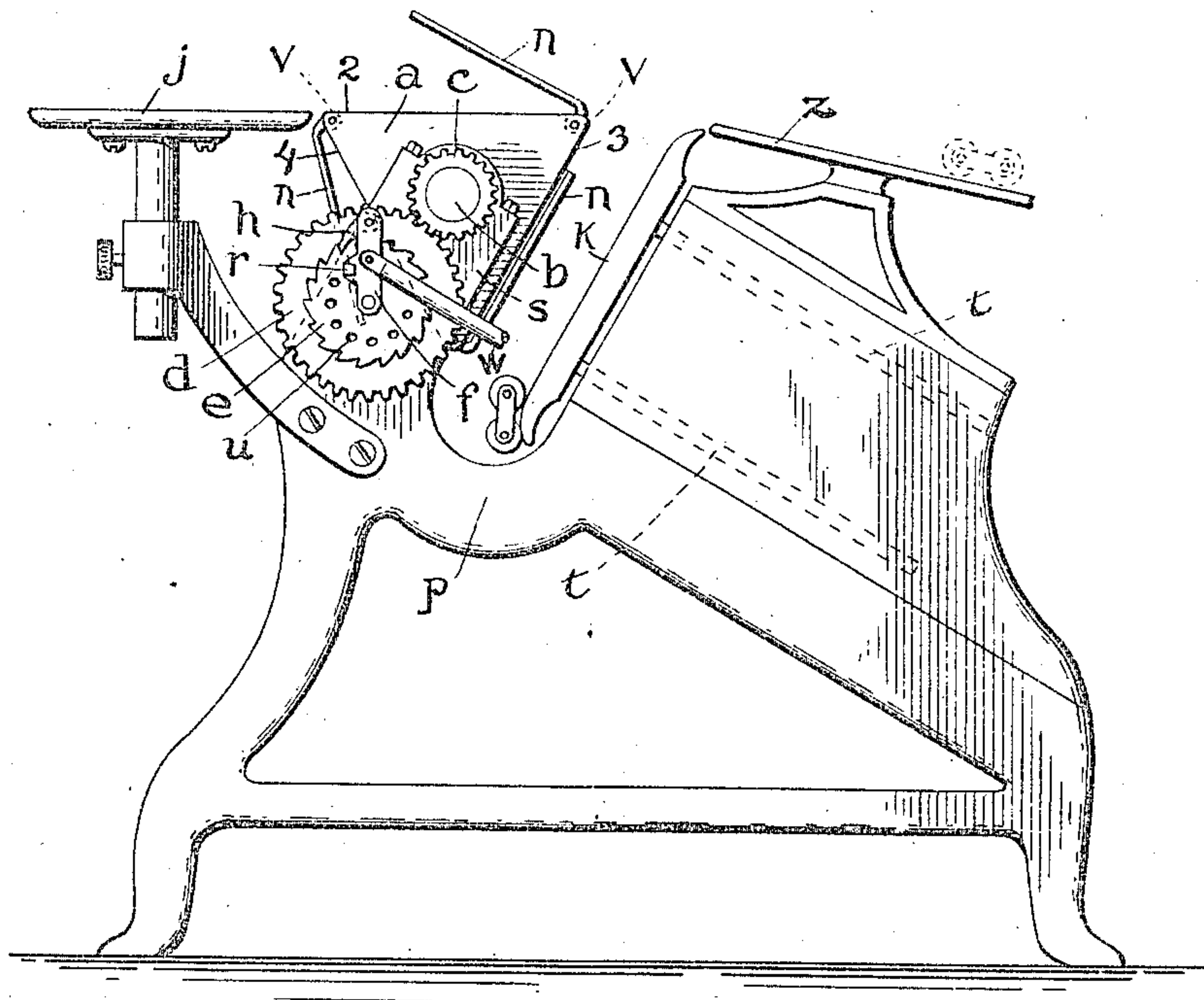
APPLICATION FILED JAN. 14, 1910.

975,963.

Patented Nov. 15, 1910.

2 SHEETS—SHEET 1.

Fig. 1.



Witnesses  
Stuart Hilder  
Francis M. Anderson

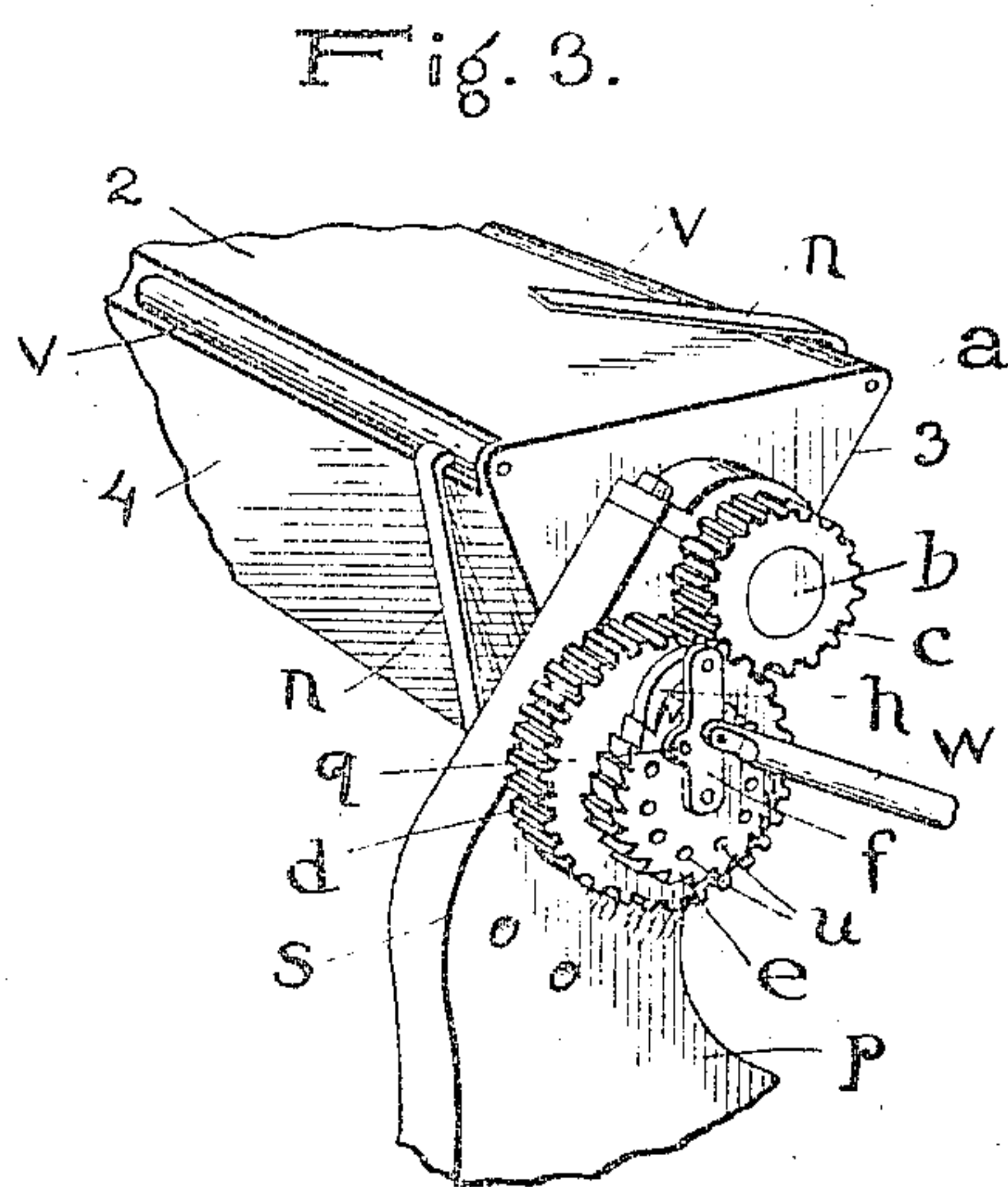
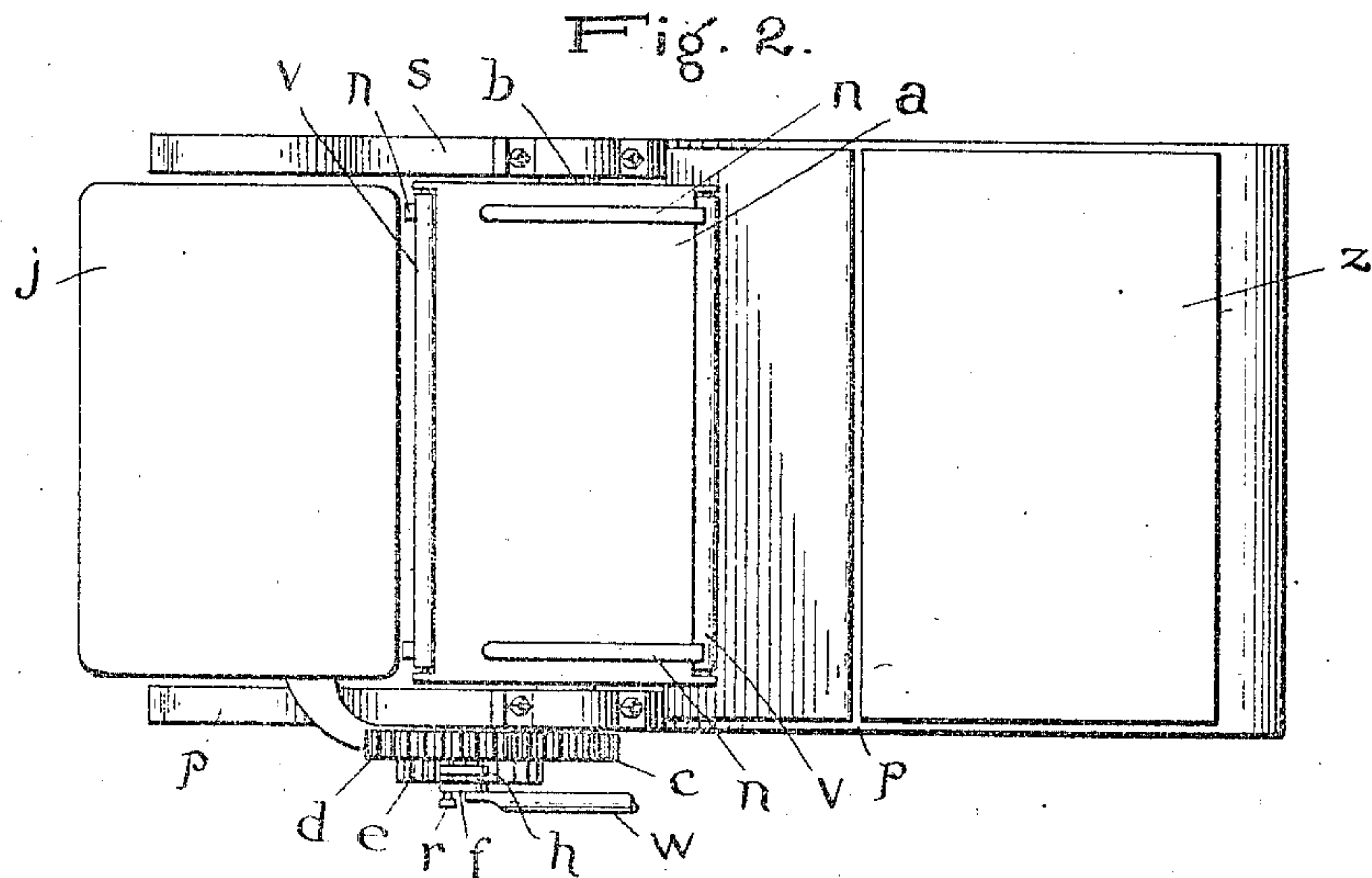
Inventor  
Martin R. Land,  
by E. W. Anderson  
Attorney

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Stuart Hilder.  
Frances M. Anderson.

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Martin R. Land.  
by E. W. Anderson  
his Attorney



# UNITED STATES PATENT OFFICE.

MARTIN R. LAND, OF NORFOLK, VIRGINIA.

PRINTING-PRESS.

975,963.

Specification of Letters Patent.

Patented Nov. 15, 1910.

Application filed January 14, 1910. Serial No. 538,164.

*To all whom it may concern:*

Be it known that I, MARTIN R. LAND, a citizen of the United States, resident of Norfolk, in the county of Norfolk and State of Virginia, have made a certain new and useful Invention in Printing-Presses; and I declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it appertains to make and use the invention, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 is a side view of a printing press having my invention applied thereto. Fig. 2 is a plan view of the same. Fig. 3 is a detail perspective view of a portion of the triangular prism platen and adjacent parts.

The invention relates to printing presses, and it consists in the novel construction and combinations of parts as hereinafter set forth.

The object of the invention is to improve the efficiency of a printing press of the platen type by increasing the speed of the work.

In the accompanying drawings, illustrating the invention, the letter *p*, designates the frame of the machine. To this frame is connected the inclined bed *k*, which is a reciprocating bed, having parallel motion communicated by suitable crank gearing (not shown) such as is ordinarily used on printing presses of this type. The bed is provided with guides *t*, seated in guideways of the frame.

In bearings of the arms *s*, of the frame are the journals of a shaft *b*, on which is secured a triangular prism *a*, which is the platen of the press. This platen is equilateral, being thus provided with three operative faces, the three edges of the platen being longitudinally recessed and provided with gripper shafts *v*, and grippers *n*. Secured to one end of the shaft *b*, is a gear wheel *c*, which engages a gear wheel *d*, having a concentric ratchet wheel *e*, which is rigidly attached to said gear wheel *d*. On the journal or pivot of the gear wheel *d*, is pivoted an arm *f*, which extends radially and is provided with a pawl *h*, designed to engage the teeth of the ratchet wheel. The arm *f*, is provided with an opening at *g*, for a clamp screw *r*, designed to engage one

of a series of perforations *u*, of the ratchet wheel, when it is desired that the movement of the platen shall be of oscillating or rocking character. In this case the platen is oscillated or rocked so that the horizontal face 2, will be moved into position of the face 3, for receiving the impress of the type, and back again. When the pawl arm is not attached to the ratchet wheel the platen is designed to have an intermittent rotary movement. Vibratory motion is communicated to the arm *f*, by means of a rod *w*, connected to a crank of a driving shaft (not shown).

An adjustable table *j*, is provided in connection with the front portion of the frame, and the rear part of said frame is provided with an inking disk *z*, over which and over the form the inking rollers move, being actuated in any ordinary manner.

The feeding table *j*, is adjustable to proper height for carrying the paper, so that it can be fed on a level or nearly so with the upper or receiving face of the platen. When the prism platen is still, during the intermission of the rotary movement, its position is such that its upper face is horizontal and its side faces are equally inclined downward and toward each other, rapidly shelving from the upper face to the bottom edge. During the time that the platen is still and a sheet of paper is being placed on a horizontal receiving face as at 2, an inclined working face, as for instance 3, carrying the sheet of paper previously fed thereto, is receiving the impress of the type form as the bed moves up to effect the printing, and a discharging face as at 4, allows a previously printed sheet to drop on a suitable table or into a receptacle. The inclination of the bed is upward and toward the operator so that it is easily kept under inspection. The inclination of the working face is such that it is exactly parallel to the face of the bed, and the inclination of the discharging face being downward facilitates the drop of the printed sheet, giving an approximately vertical edgewise discharge of such sheet.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:

1. In a printing press, the combination of an inclined reciprocatory bed, a rotary equilateral triangular prism platen having three faces each becoming successively a top re-



ceiving face, a forward and downward inclined printing face and a rearward and downward inclined discharge face, and means of intermittent rotation for said  
5 platen whereby an approximately vertical edgewise discharge of the printed sheet is provided for.

2. In a printing press, a triangular equilateral prism platen having a gear wheel  
10 upon its shaft and an operating gear wheel in engagement therewith having a ratchet and pawl connection with a driving shaft, substantially as specified.

3. In a printing press, the combination  
15 with an upward and forward inclined bed, of a rotary triangular equilateral prism platen, its gear wheel, an operating gear wheel having a ratchet, a vibratory pawl arm axially in connection with the latter  
20 gear wheel, and a pawl pivoted to said arm and in engagement with said ratchet wheel, substantially as specified.

4. In a printing press, the combination with an upward and forward inclined bed, of a triangular equilateral prism platen, its  
25 gear wheel, an operating gear wheel, a ratchet wheel attached to the latter gear wheel, a radial pawl arm axially connected thereto, a pawl pivoted to said arm, and means for detachably connecting said pawl  
30 arm and ratchet wheel, substantially as specified.

5. In a printing press, the combination with a rotary triangular equilateral prism platen provided with means for intermittent  
35 rotation, of means for changing said means for intermittent rotation into means of oscillation.

In testimony whereof I affix my signature, in presence of two witnesses.

M. R. LAND.

Witnesses:

RICHARD A. CURTIN,  
STUART HILDER.