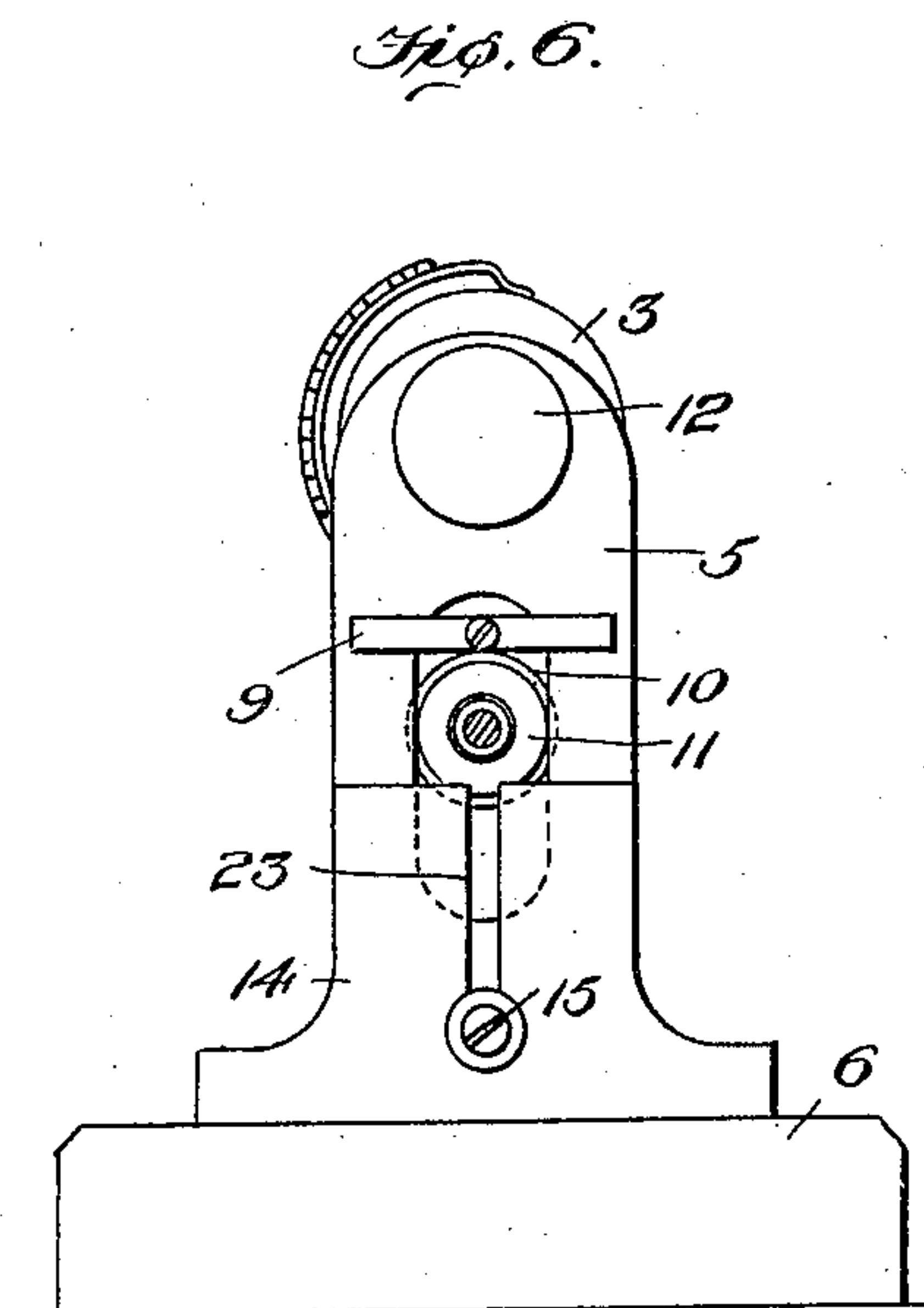
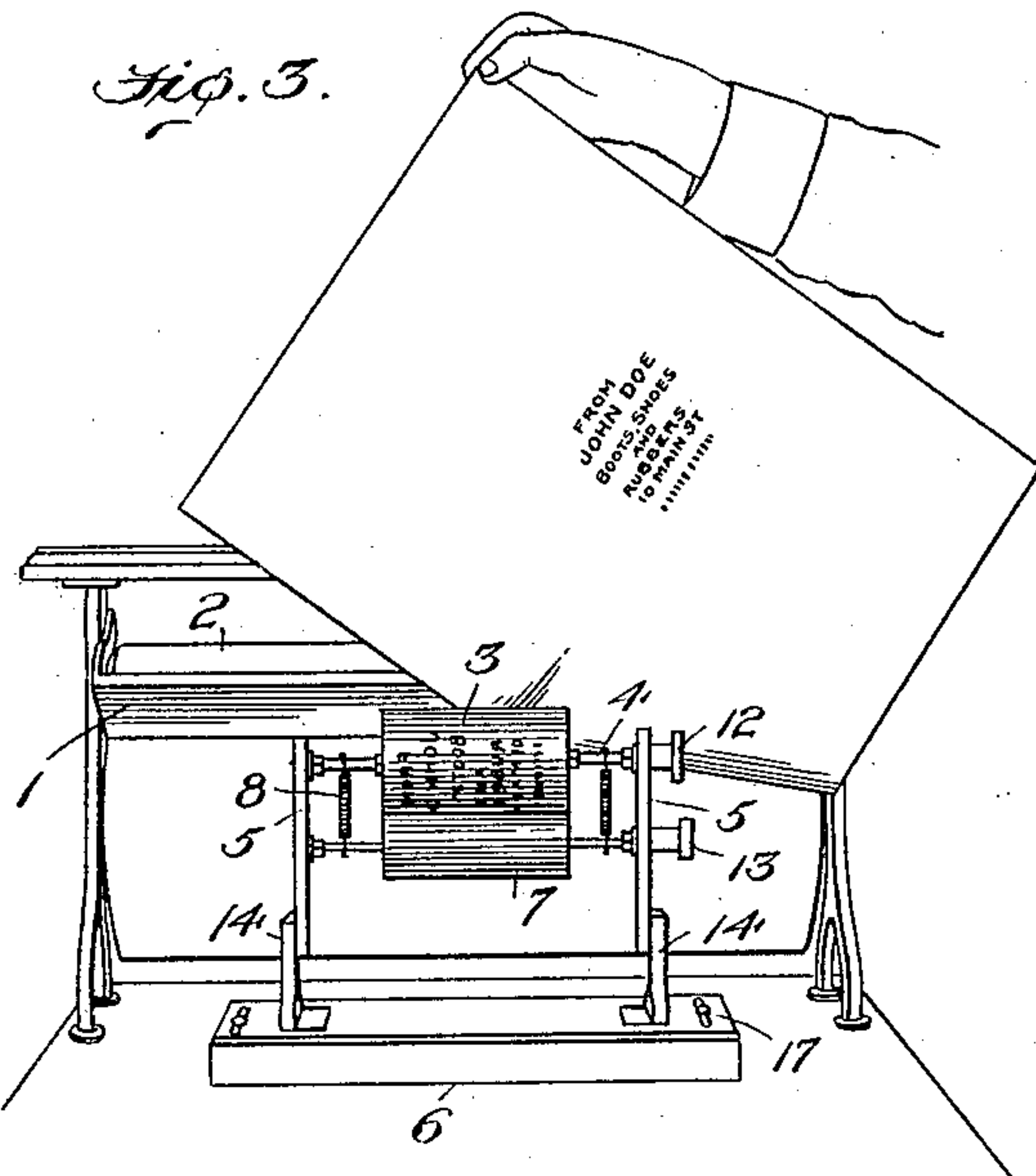
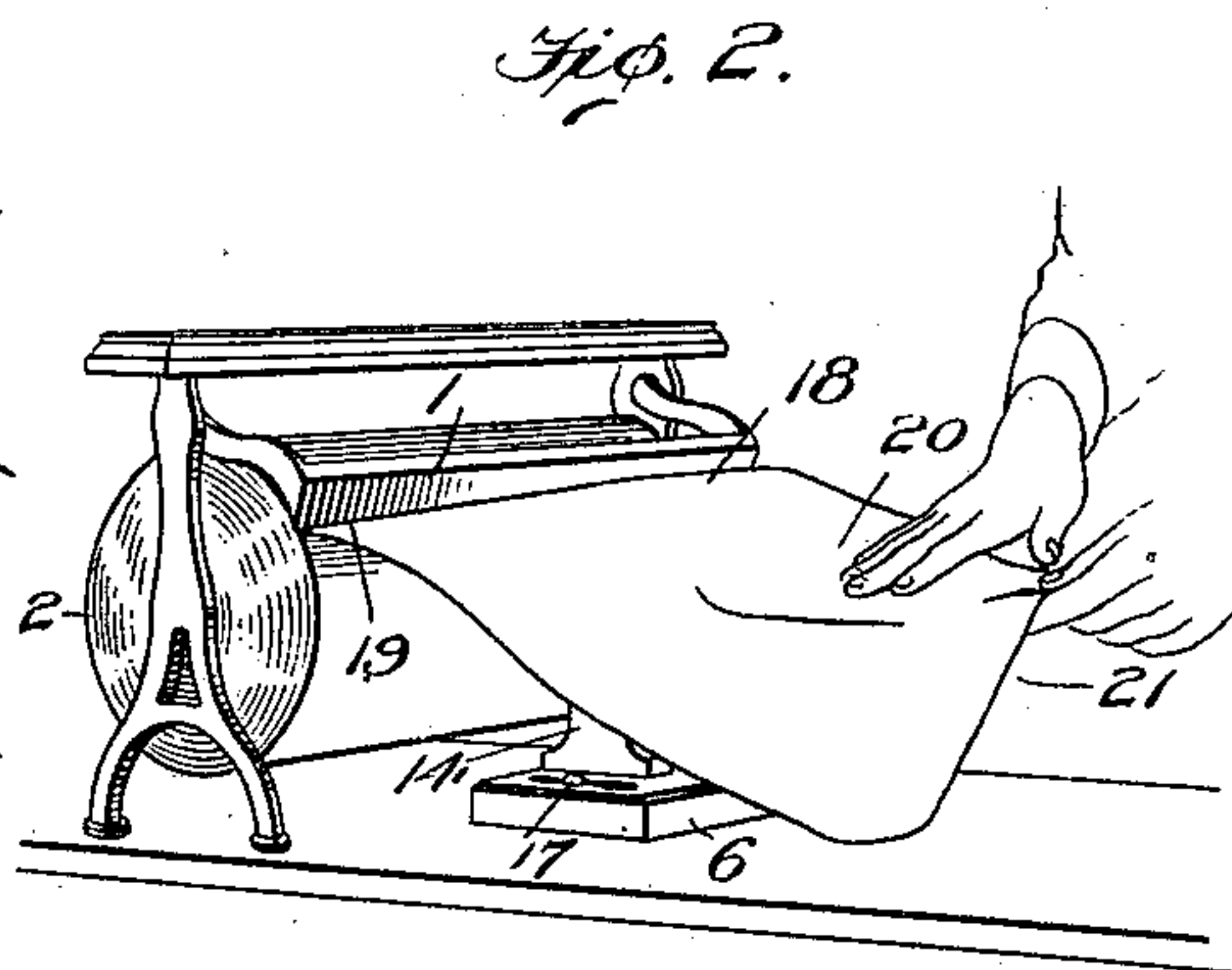
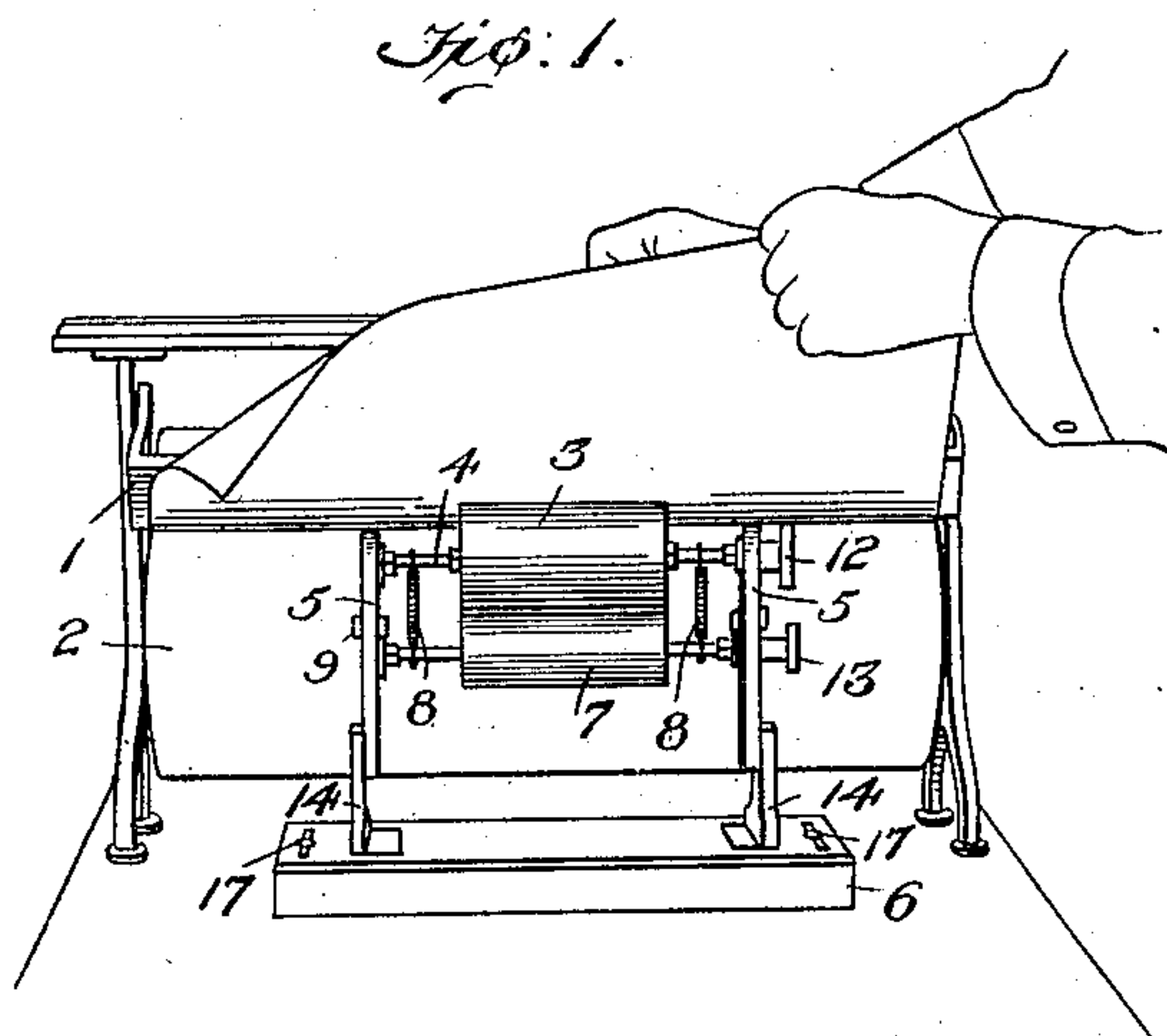


W. B. CASEY.
COMBINED PAPER ROLL HOLDER AND PRINTING DEVICE.
APPLICATION FILED JUNE 24, 1908.

903,542.

Patented Nov. 10, 1908.

2 SHEETS—SHEET 1.



Witnesses

Edwin L. Bradford
Anne B. Johnson

Inventor

William B. Casey

By

Johnson & Johnson

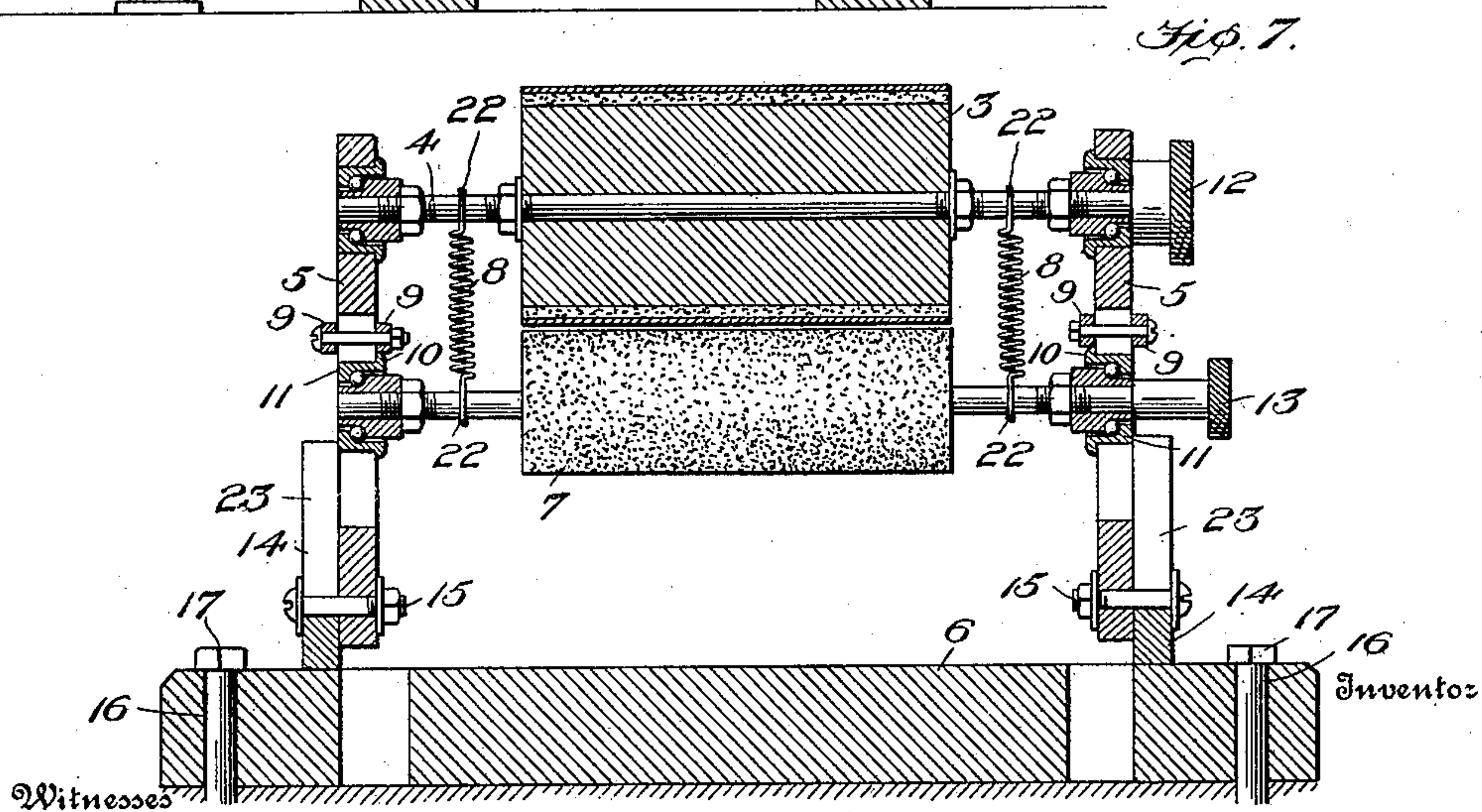
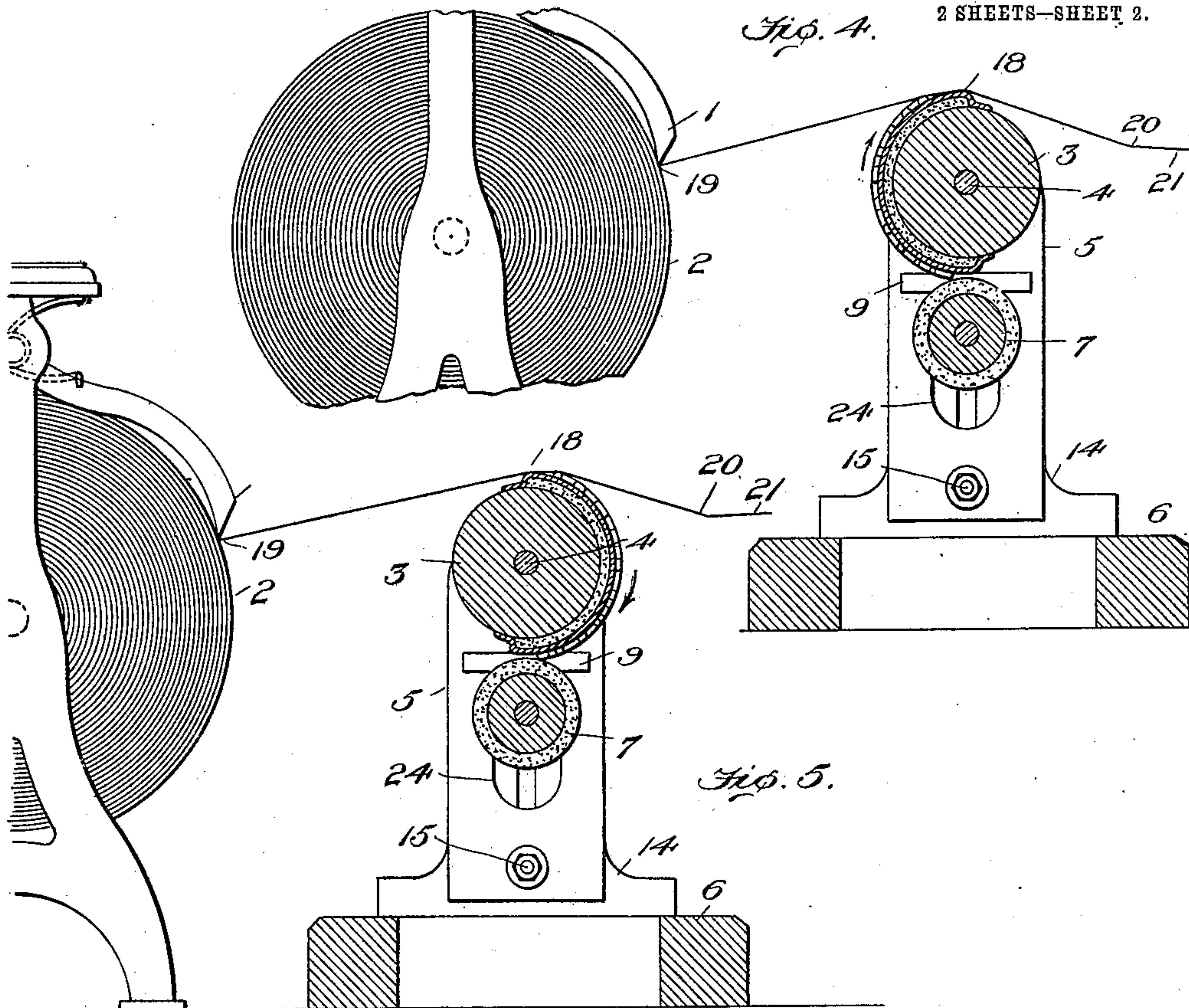
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2 SHEETS—SHEET 2.



Witnesses
 Edwin L. Bradford
 Anne B. Johnson.

By *William B. Casey*
 Attorney

UNITED STATES PATENT OFFICE.

WILLIAM BEN. CASEY, OF BRATTLEBORO, VERMONT.

COMBINED PAPER-ROLL HOLDER AND PRINTING DEVICE.

No. 903,542.

Specification of Letters Patent.

Patented Nov. 10, 1908.

Application filed June 24, 1908. Serial No. 440,161.

To all whom it may concern:

Be it known that I, WILLIAM B. CASEY, a citizen of the United States, residing at Brattleboro, in the county of Windham and State of Vermont, have invented certain new and useful Improvements in a Combined Paper-Roll Holder and Printing Device; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

For printing the dealer's name, address and business on paper as it is drawn from the roll of a paper-holder and cutter, I have produced an improvement in which the printing roller has such relation to the front of a paper-roll machine that the paper while being drawn over and upon the top of the printing roll will be printed by pressure applied to that portion which is held in front of and away from the printing-roll and in this printing operation the spring pressed cutter of the supply-roll has an anchoring function in holding the paper while the dealer causes the rotation of the printing-roll by pressing on the paper in front thereof to make the impression. In this operation a sufficient portion of the paper to receive the printing is drawn and placed upon the top of the printing-roll causing its rotation in making the impression, the pressure of the cutter on the paper meanwhile serving as a brake to hold it under tension at the roll while it is being drawn therefrom under pressure applied downwardly upon the end held by the dealer and before he tears it from the roll, it being understood that the pulling and pressure applied to the end of the paper causes the rotation of the roll while making the impression only, because without the spring pressed cutter the paper could not be pressed down at its pulled end upon the top of the printing roll and it is this that renders the paper supply-roll, the cutter and the printing-roll in combinative relation.

For carrying out this operation the accompanying drawings illustrate in front perspective Figure 1 a paper-roll holder showing the paper partially drawn therefrom and in position to be placed upon and pressed down upon the printing-roll. Fig. 2 shows in perspective a paper-roll holder with the paper drawn therefrom over and upon the printing roll and held thereon

under pressure applied to the end of the paper by the hands of the dealer while making the impression as the paper is pulled to rotate the roll. Fig. 3 is a front perspective of the same showing the paper as having been drawn, printed, lifted from the printing-roll and partially torn from the supply-roll. Fig. 4 shows in vertical transverse section the printing device and so much of the paper roll and its spring pressed cutter as illustrates the relation of the drawn paper to the printing surface and the holding function of the cutter upon the paper while it is being drawn over the printing-roll and pressed down in front of it at the point of starting the printing. Fig. 5 shows an identical section the printing roll having been rotated by the pulling of the paper to the position to complete the printing by drawing the paper thereon while held under pressure by the hand. Fig. 6 shows the printing device in end elevation. Fig. 7 shows the printing and the inking-rolls in elevation and the standards in which they are mounted in vertical section.

The paper-roll holder may be of the construction now in general use in which the spring pressed cutter 1 is fixed at the front of and near the top of the paper-supply-roll 2, and while the frame in which the printing mechanism is mounted is a separate structure, its relation to the cutter is such that the printing-roll 3 must be in front of, a short distance from, and its top preferably a short distance above the plane of the cutter in order that the paper between the supply-roll and the cutter may extend from the latter in an upwardly incline to the top of the printing-roll so that the dealer can depress that portion of the paper as he pulls it in front of the printing-roll and thereby cause the rotation of the latter in making the impression.

The shaft 4 of the printing-roll is mounted in and has fixed relation to standards 5—5 which, as shown is secured to a base-board 6 which is fastened to the counter; and in these standards the ink-roll 7 is suspended by coil-springs 8—8 from the printing-roll shaft so that the ink-roll is free to have a vertical movement to apply the ink to the printing surface in a well-known way. For this purpose the standards are formed with vertical openings 24 in which the journal mountings of the inking-roll are fitted to slide freely. The printing-roll is provided with the matter to be printed, preferably in

rubber type form, and is therefore raised above the surface of the roll, and the inking-roll is adjusted to ink the printing surface only so that when it is not in contact with the printing-surface it is held away from the non-printing surface by adjustable stops which are shown as cross-bars 9—9 clamped to the standards against which flanges 10 on the journal boxes 11, abut to limit the ascent of the inking-roll and to keep it away from the non-printing-surface of the printing-roll as shown in Fig. 7, so that it is only after the impression has been made that the printing roller is rotated by hand to ink the printing-surface and present and hold it in position for the next impression as in Fig. 4, and for this purpose the end of the shaft is provided with a hand-knob 12.

Ball-bearings may be provided for the journal-mountings of the printing and the inking rolls in a well known way to render them easily rotative. The inking-roll shaft is provided with a hand-knob 13 by which to turn it while inking the pad which may be of the well known roll-form and the relation of the two rolls is such that the inking-roll is rotated by the printing-roll only while making the impression; while in making the impression the rotation of the printing-roll is stopped by the striking of the type surface upon the inking pad at which point it stands as in Fig. 5, until turned by hand to ink the printing surface for the next impression. In this way the automatic stopping of the rotation of the printing roll indicates that the impression is made.

The standards are preferably of a fixed base section 14 upon which the journal standards 5, are mounted for adjustment of the printing-roll toward the paper supply-roll as it becomes small and for this purpose the journal bearing standards are each pivotally mounted at their lower ends by bolts 15 in vertical slots 23 in the base sections so that by loosening said bolts the roll supporting standard sections can be tilted toward or from the paper-roll or raised and lowered as may be desired and clamped to the base sections by their pivot bolts. By this adjustment the relation of the printing surface to the cutter is maintained as the diameter of the paper supply-roll lessens; while the height of the printing-roll can be adjusted to give the proper upward inclination to the paper between the cutter and the top of the printing roll and for this purpose the base standard sections have each a vertical slot 14, within which the nutted pivot-bolts 15 of the upper standard sections can be set up or down and clamped when set to the base section. For setting the printing device the proper distance from the paper supply-roll stand the base-board at each end has transverse slots 16 through which nutted screw-bolts 17 are passed that secure the printing

device to the counter. A suitable size for the printing device would be about six inches in height and ten inches long with a cast iron frame, a printing-roll about four and a half inches long and two inches in diameter, and will be set away from the cutter about six inches.

Looking at Fig. 2 of the drawings it will be seen that the paper has been fully drawn and the impression made thereon by the printing surface at the point 18 which is above the cutter line 19, while under the pressure of the hand at 20 the paper is depressed below the top of the printing-roll as it is drawn by the hand at its end 21, the paper is then torn off at the cutter as in Fig. 3. It will also be noted that the inking roll suspending springs at their ends are formed with loops 22 by which they are connected respectively to the shafts of the printing and of the inking-rolls. It will also be noted that it is the fixed relation of the printing-roll to the spring pressed cutter that gives the advantage of making the impression upon the upper surface of the printing-roll. It is also important to note that the printing-roller is held with its printing surface in position to receive the paper by the tension of the ink-roll suspending springs which constantly exert a downward pulling force upon the shaft of the printing-roll and thereby hold it by friction at the spring connection and at its journal bearings, but this friction is easily overcome by the pulling force of the paper in its engagement with the raised letters of the printing surface to cause its rotation. It will therefore be seen that in making the impression the printing-roll is caused to make a half revolution bringing the printing surface outward as in Fig. 5, and during which there is no engagement of the ink-roll with the printing-roll, and that in the next half revolution in the same direction the printing surface is brought inward as in Fig. 4, and set at the starting point to receive the paper for the next impression so that each edge of the printing surface governs the extent of the contact of the rolling surfaces and it is between these edges that the adjustable stops 9—9 which limit the ascent of the ink-roll that the roll-surfaces are not in contact. An advantage resulting from this operation is that the printing-roll can be turned in either direction to ink its printing surface and to set its printing surface upward to receive the paper. The advantage of limiting the ascent of the inking roller is that it permits the contact of the latter only with the printing surface in the rolling contact of the rolls and thereby prevents the inking of the non-printing-surface, and serves by means of the adjustable stops to regulate the pressure of the ink-pad upon the printing-surface. This hand operation of the printing-roll indi-

cates to the salesman when the printing is made.

It is important to note that as my invention rests upon the conception of printing the paper by manual pressure applied to the free drawn end of the paper and away from the printing roll not directly upon or against it, the printing-roll therefore must be uncovered that is,—it must neither be covered in part nor in whole by the inking-roll or by the top rail of the frame, so that the paper as it is drawn from the roll can be freely handled to pull it over and place it upon the top of the printing-roll and effect the printing by hand pressure applied downward to that end of the paper which is manually held and so far as I know and can find this is a new operation in a paper holding and printing device.

I claim:

1. In a device of the character described, a rotatable roll of paper, a spring-pressed cutter therefor, a frame, mounted in front of the cutter, a printing-roll mounted in bearings fixed at the top of said frame, and having its upper portion free of obstruction, and an inking-roll yieldingly suspended beneath the printing-roll, whereby the printing is effected by hand pressure applied downward upon the free end of the drawn paper and transmitted thereby to that portion of the paper resting upon the printing surface at the top of the roll in the way stated.

2. In a combined paper-roll holder and printing device, a printing-roll and an inking-roll yieldingly suspended beneath the printing-roll, a rotatable-roll of paper, and a spring pressed cutter therefor, the printing-roll and the cutter having a fixed relation to each other, whereby the paper is held to receive the impression upon the top of the printing roll and above the cutter by pressure applied manually downward upon its free end, and a pivotally mounted stand within which the printing and the inking-rollers are journaled for adjustment in the arc of a circle toward the paper roll as the diameter of the latter lessens substantially as described.

3. In a combined paper-roll holder and printing device, a printing-roll and an inking-roll yieldingly suspended beneath the printing-roll, a rotatable roll of paper, and a spring pressed cutter therefor, the printing-roll and the cutter having a fixed relation to each other, whereby the paper is held to receive the impression upon the top of the printing-roll and above the cutter by pressure applied manually downward upon its free end in the operation of drawing the paper to rotate the roll, a pivotally mounted

stand within which the printing and the inking-rollers are journaled for adjustment in the arc of a circle toward the paper-roll, and means whereby the stand is adjusted vertically and horizontally toward the paper-roll for the purpose stated.

4. The combination with the rotatively mounted paper-roll and its spring pressed cutter, a printing roll having a fixed relation to the cutter and an inking-roll yieldingly suspended beneath the printing-roll, the paper being drawn at an upwardly incline from the cutter to and over the top of the printing-roll and manually depressed in front of the printing-roll, whereby the paper is drawn under the brake function of the cutter in the operation of rotating the printing-roll and making the impression, and hand operated means for rotating the printing-roll to set its printing surface at the top for the succeeding operation.

5. A paper roll printing device and in combination with the paper supply-roll, and a spring pressed cutter therefor, a printing-roll, and a vertically yielding suspended inking-roll therefor, means for manually rotating the printing-roll to re-ink the printing surface and present it in normal position for the succeeding impression, means for holding the roll in such position, and stops for limiting the ascent of the inking-roll to hold it out of engagement with the non-printing surface after the impression has been made.

6. In a combined paper-roll and printing device, a printing-roll, an inking-roll yieldingly suspended from the shaft of the printing-roll, standards each of a fixed and an adjustable section, the fixed sections having each a vertical slot, within which nutted bolts serve as the pivots on which the adjustable sections are mounted and supported in lapping relation to the fixed sections, the adjustable sections having each a fixed journal-bearing for the printing-roll and an adjustable journal-bearing for the inking-roll, and means for effecting the rolling contact of the rolls, whereby the paper is supported to receive the impression upon the top of the printing-roll and above the cutter, and the printing-roll rendered adjustable in the arc of a circle and vertically in its relation to the cutter.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM BEN. CASEY.

Witnesses:

WM. R. DALEY,

FRANK E. BARBER.