

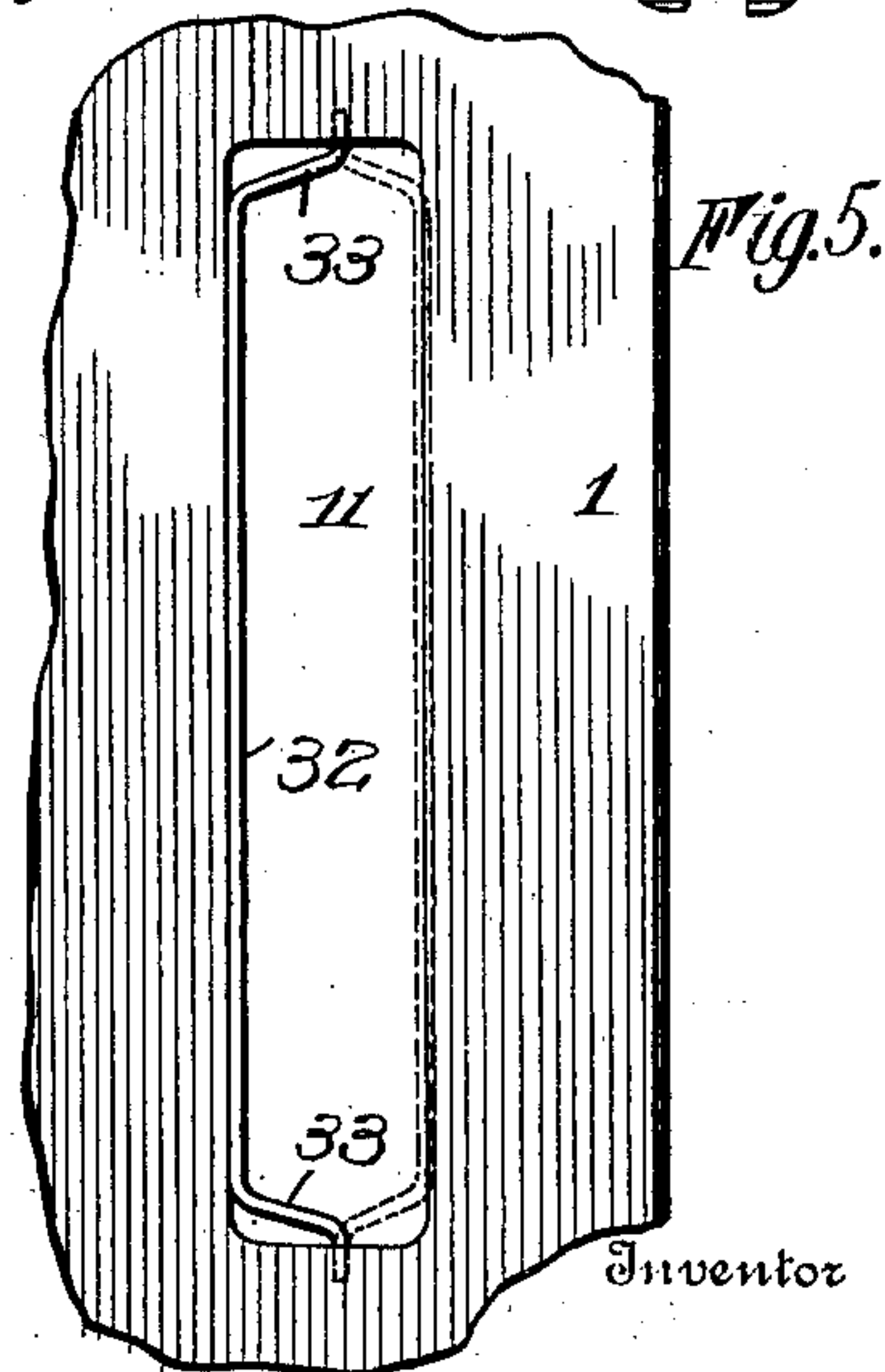
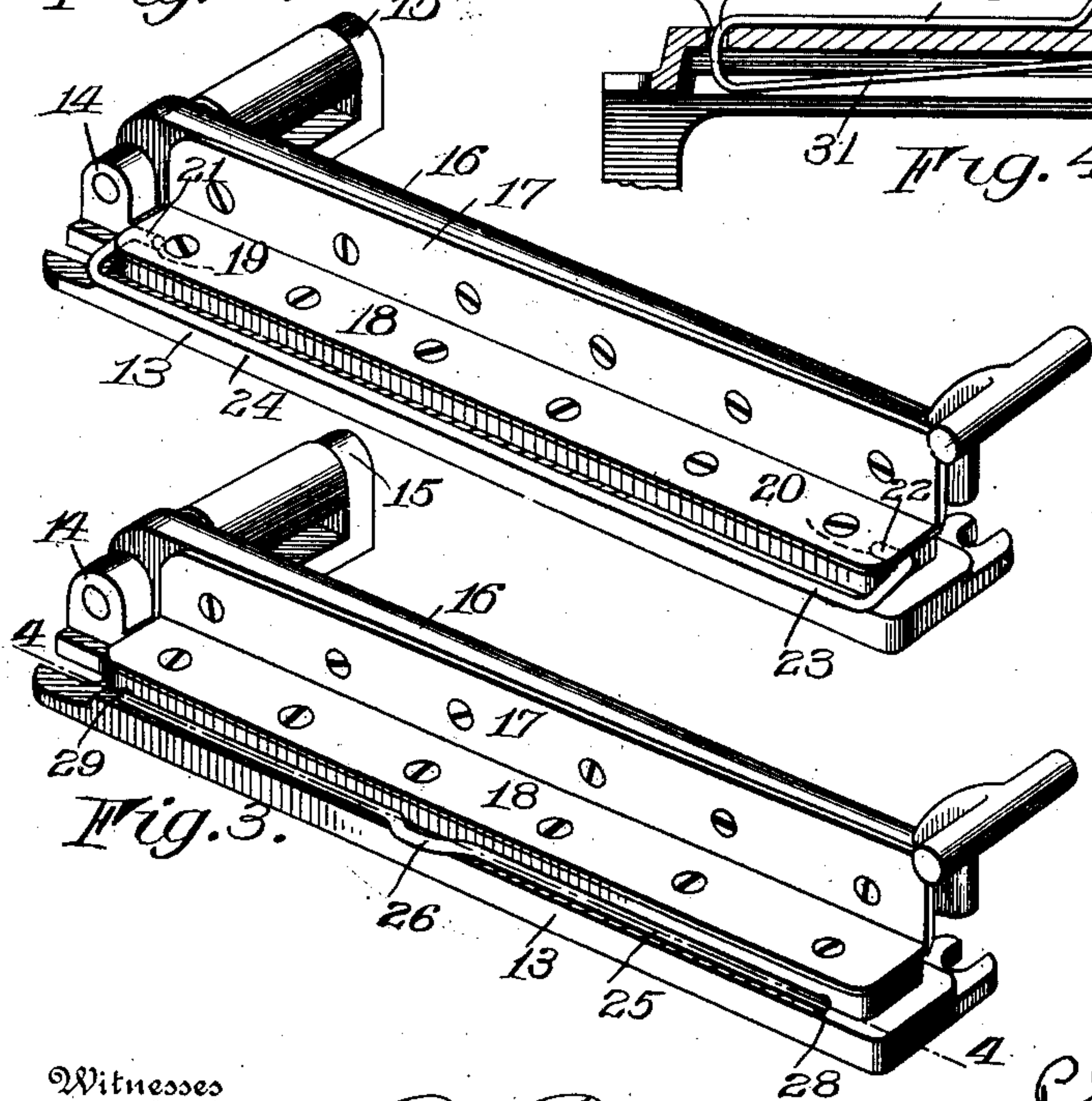
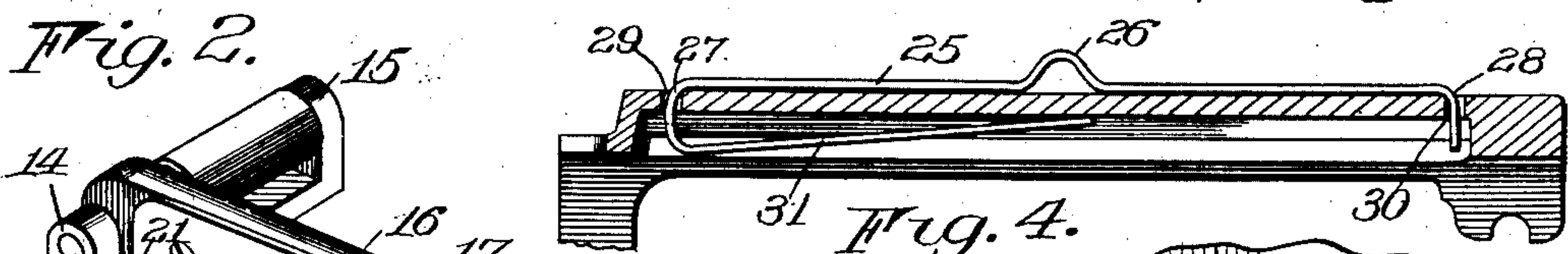
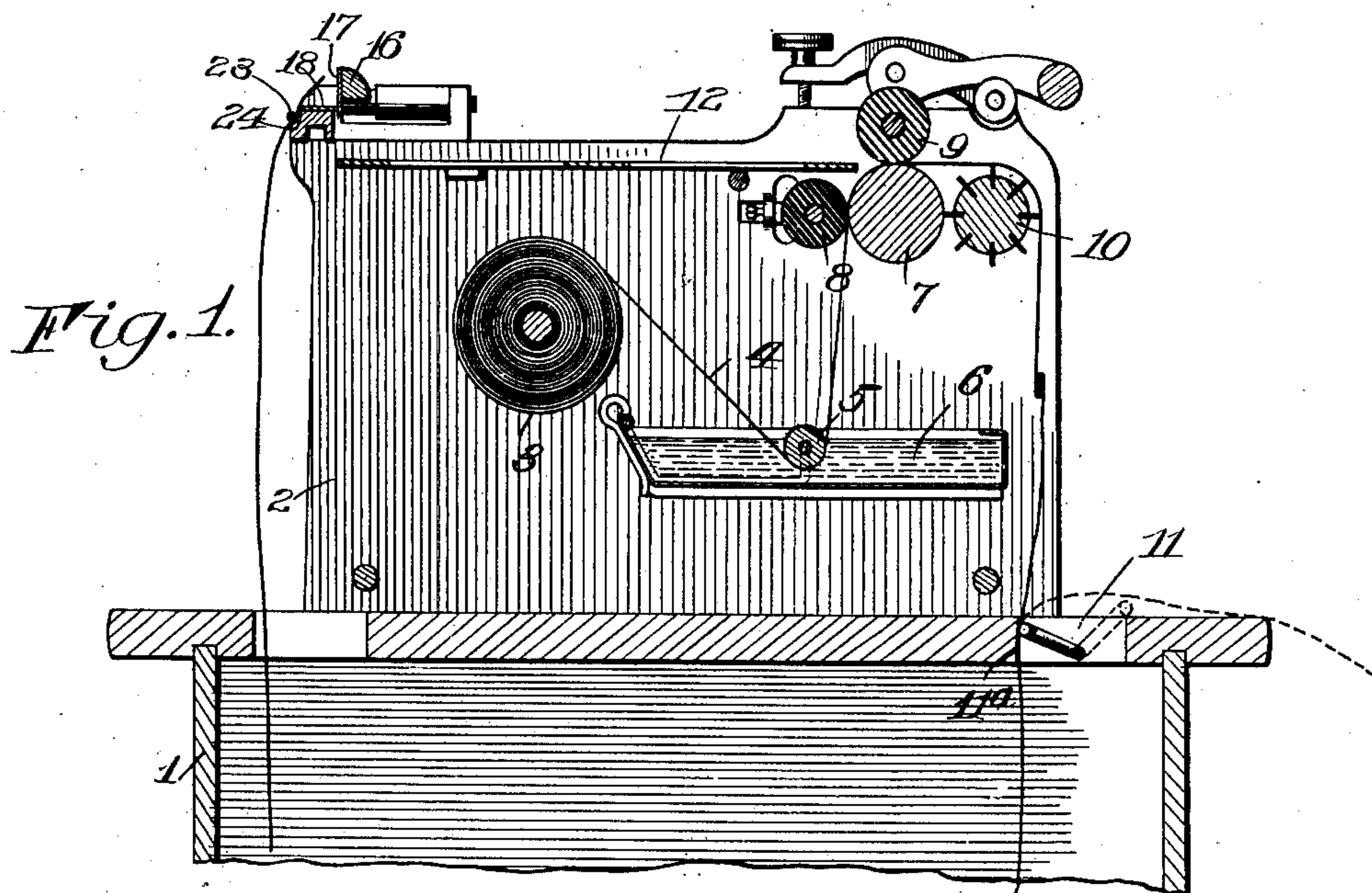
No. 826,642.

PATENTED JULY 24, 1906.

P. H. YAWMAN.
PAPER HOLDER FOR ROLLER COPYING DEVICES.

APPLICATION FILED MAR. 17, 1904.

2 SHEETS—SHEET 1.



Witnesses

Walter B. Payne.
Willard Rich.

By

Philip H. Yawman
Gudmund Church
Attorney

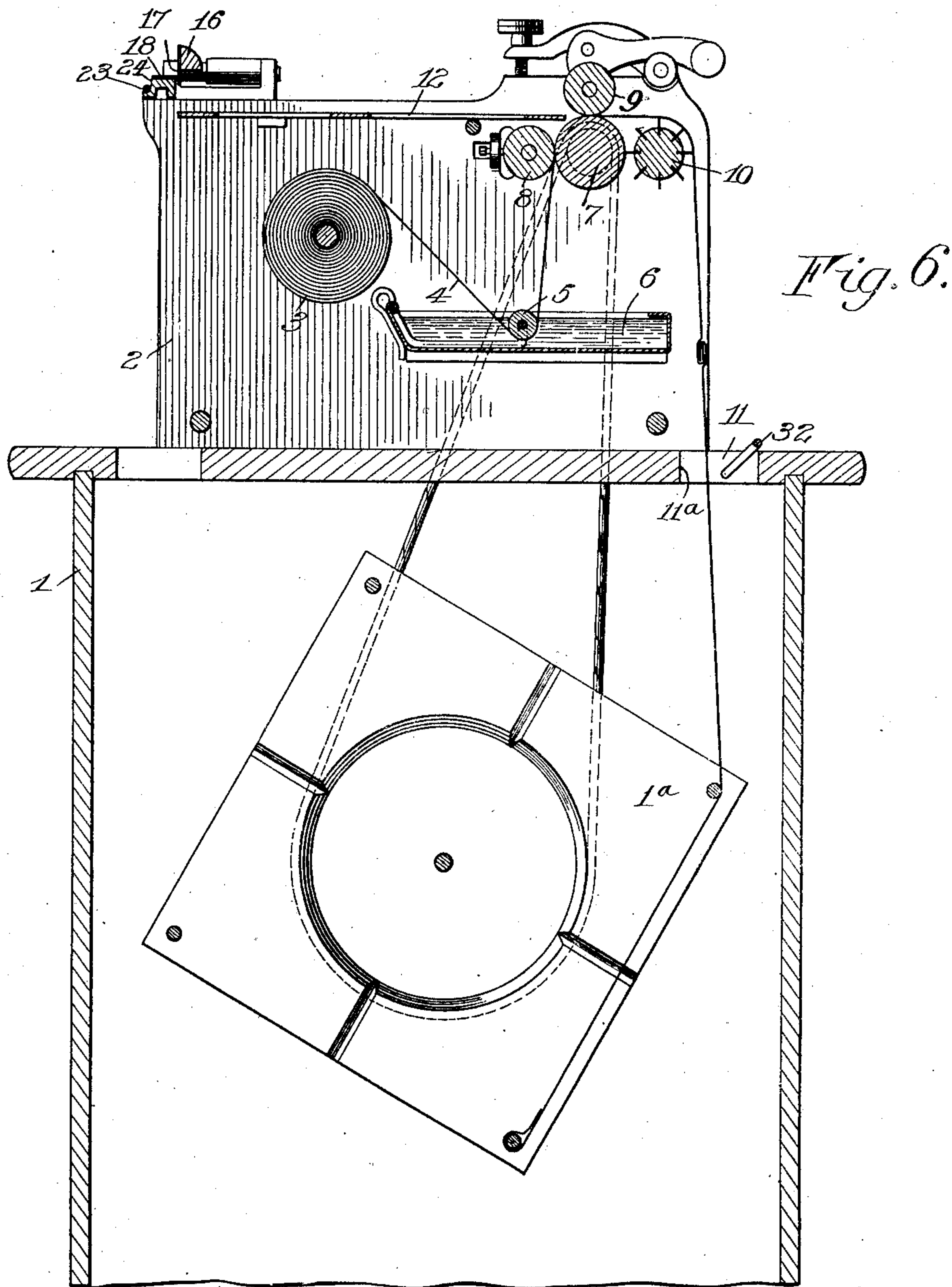
No. 826,642.

PATENTED JULY 24, 1906.

P. H. YAWMAN.
PAPER HOLDER FOR ROLLER COPYING DEVICES.

APPLICATION FILED MAR. 17, 1904.

2 SHEETS—SHEET 2.



Inventor

Philip H. Yawman

Witnesses

Walter B. Payne.

Clarence A. Bateman.

By

Frederick B. Clark

his Attorney

UNITED STATES PATENT OFFICE.

PHILIP H. YAWMAN, OF ROCHESTER, NEW YORK, ASSIGNOR TO
YAWMAN & ERBE MANUFACTURING COMPANY, OF ROCHESTER,
NEW YORK, A CORPORATION OF NEW YORK.

PAPER-HOLDER FOR ROLLER COPYING DEVICES.

No. 826,642.

Specification of Letters Patent.

Patented July 24, 1906.

Application filed March 17, 1904. Serial No. 198,577.

To all whom it may concern:

Be it known that I, PHILIP H. YAWMAN, of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Paper-Holders for Roller Copying Devices; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the reference-numerals marked thereon.

My present invention relates to that class of press-copying devices wherein the impressions from the letters or other papers that are to be copied are received successively upon a continuous sheet or strip; and it has for its object to provide a simple and inexpensive device for retaining the end of the sheet or film upon which the impressions have been thus received in such a position after that portion of the strip containing the adjacent impression has been severed therefrom that it may be readily and conveniently grasped by the operator to enable the next succeeding impression to be advanced preparatory to severing and subsequent filing.

To these and other ends my invention consists in certain improvements that will be hereinafter more fully explained, and pointed out in the claims hereunto annexed.

In the accompanying drawings, Figure 1 is a vertical sectional view of a roller copying device to which my improvements have been applied. Figs. 2 and 3 are perspective views of a severing-knife, showing the two preferred forms of paper-retaining devices applied thereto. Fig. 4 is a sectional view on the line 4 4, Fig. 3; and Fig. 5 illustrates a paper-holder that I prefer to employ for engaging the film or sheet at a point between the impression-rollers and the receiving-spool; and Fig. 6 is a general view of a copier, showing the receptacle or reel for the impression web or strip.

In the views the same numerals of reference designate similar parts.

Heretofore during the operation of letter-copying devices of this character considerable inconvenience and delay have been experienced while the continuous strip or sheet is being severed to enable the various impressions contained thereon to be properly filed away, for the reason that the free end of

the strip or sheet from which the next adjacent impression has been severed will immediately drop away from the severing-knife, necessitating more or less time and inconvenience at each severing operation to bring the said portion into position in order that the succeeding portion of the sheet may be severed. It is the purpose of my invention to eliminate these objectionable features, and thereby facilitate the manipulation of the device by means of a device that I will proceed to describe.

For convenience I will describe the said improvement as applied to a well-known form of roller copying device, wherein 1 designates the base or standard usually containing the receiving reel or receptacle 1^a, and upon the base is mounted the copying mechanism comprising the side bearing portions 2, between which is mounted the spool 3, containing a continuous strip 4 of tissue-paper or other suitable material upon which the impressions are to be received. This strip passes beneath a roller 5, located within the dampening or moistening tray 6, and thence between the impression-roller 7 and the expressing-roller 8, where the excess moisture is removed from the strip, and passing between the impression-rollers 7 and 9 and over the guiding-roller 10 continues downwardly through the aperture 11 to the receiving roller or reel, upon which it is wound.

In operation the letters or other papers to be copied are placed face downward upon the tray 12, and as the moistened strip is fed forwardly between the rotating impression-rollers 7 and 9 the adjacent edge of the letter will be moved in between the said rollers, the moisture of the strip, in conjunction with the pressure exerted by the impression-rollers, causing an impression to be transferred from the letter to the continuous strip in a manner that is well understood to those skilled in the art. When a number of impressions have been received upon the continuous strip and it is desirable to file them away in their respective places, the strip is divided into parts containing the various impressions, and for this purpose a severing-knife is preferably employed having a base portion 13, which is preferably attached to the frame of the device in line with the continuous strip, which will be at this time con-

tained upon the receiving-reel, a pair of bearings 14 and 15 being provided for supporting a swinging blade 16, which carries a cutting-blade 17, cooperating with the blade 18 of the relatively fixed base portion 13. Referring particularly to that form shown in Fig. 2, it will be seen that a pair of oppositely-disposed apertures 19 and 20 are provided which extend inwardly from each end of the base portion 13, below the blade 18 thereof, and into these apertures are journaled the intumed extremities 21 and 22 of the arms of the bail 23, the central portion of which normally tends to move downwardly under the influence of gravity. In order to amplify the binding or gripping action of the retaining device upon the paper, it is preferable to form the base portion 13 of the knife with an offset edge 24, as with such a construction a recess will be formed between the said edge and the adjacent edge of the blade 18, across which the continuous strip will span, and as the central portion 23 of the bail presses downwardly under the influence of gravity that portion of the strip engaged thereby will be pressed into said recess, and thus serving to clamp the end of the strip firmly in position immediately adjacent the severing-knife, the construction of the device being such as to enable it to be readily lifted to free the paper strip or permit it to be readily inserted thereunder.

In Figs. 3 and 4 I have illustrated a modified form of the device, wherein the bail 25 is preferably formed of spring material, the central portion of which is bent to form a handle 26, the arms 27 and 28 of the bail being bent off substantially at right angles to the central portion to enter the inclined apertures 29 and 30, which are formed in the base portion 13 at points intermediately of the projecting edge 24 and the adjacent edge of the blade 18. The arm 27 is provided with an extension 31, which is doubled backward toward the central portion of the bail, and when the latter is in position the central portion thereof will bear upon the strip between the edge 24 and the blade, and the doubled arm 31 will bear against the under side of the base, thereby constituting a spring-arm, the normal tendency of which is to produce a binding or clamping action between the central portion of the bail and the paper strip interposed between it and the base. Therefore it will be understood that in both of the forms above described an improved clamping device is provided whereby the strip is automatically gripped in such a manner as to permit it to move forwardly as may be desired, but which will effectually retain the strip in position in readiness to be conveniently reached by the operator, and while I have for convenience described these devices as applied directly to the relatively stationary base portion of the knife it will be

understood any suitable support may be utilized between the knife and reel for this purpose. If desirable, a somewhat similar device may be interposed at a point between the impression-rollers and the winding or receiving reel which will serve to prevent the free end of the strip after it has been disconnected from dropping through the aperture 11 into the lower portion of the base, and in its present form such a device comprises a bail 32, the laterally-extending arms 33 of which are bent outwardly and journaled in apertures formed in the ends of the aperture 11, such a construction enabling the central portion of the bail to swing toward the wall 11^a of the aperture and clamp the strip therebetween under the influence of gravity, the device being thrown into inoperative position when tilted into the position shown in dotted lines in Figs. 1 and 5.

Clamping devices of this character may be inexpensively manufactured of wire or similar stock material and in use will operate to firmly and effectually retain the strip carrying the impressions in such desired positions as to materially facilitate the manipulation of copying devices operating upon the principles herein set forth.

I claim as my invention—

1. In a press-copier, the combination with a support, an impression device, a paper-holder for supplying an impression-strip to the impression device, and a receptacle arranged beneath the impression device and adapted to receive the strip therefrom, of a device located at a point between the receptacle and the impression device for holding the end of the strip leading to the receptacle in operative position for attachment to the end of the strip leading from the impression device.

2. In a press-copier, the combination with a support, an impression device mounted thereon, a paper-holder for supplying an impression-strip to the impression device, a knife arranged to receive the strip from the receptacle for severing it into sections, and a receptacle arranged beneath the knife and impression device and adapted to receive the strip from the latter, of a device arranged between the receptacle and knife for holding the severed end of the strip leading from the receptacle in operative position relatively to the knife, and a second device arranged between the impression device and receptacle for holding the severed end of the strip leading from the receptacle in operative position to receive the end of the strip leading from the impression device.

3. In a copying device of the character described, the combination with the receptacle adapted to hold the continuous strip after the impressions have been printed thereon, and the severing-knife for dividing the strip into sections, of a clamping device for the

strip embodying a relatively fixed support over which the strip is adapted to pass, and a relatively movable member attached to the support and bearing upon said strip.

- 5 4. In a copying device of the character described, the combination with the receptacle adapted to hold the continuous strip after the impressions have been printed thereon, and the severing-knife for dividing the strip
10 into sections, of a clamping device located adjacent the knife embodying a support over which the strip passes, and a relatively movable bail attached to said support and arranged to produce a pressure upon the strip.
15 5. In a copying device of the character described, the combination with a suitable receptacle adapted to contain the continuous impression-strip, and the severing-knife for dividing the strip into sections, of a bail hav-
20 ing its ends journaled in a relatively fixed

portion of the knife, and having a central portion arranged to bear frictionally upon the strip to prevent the latter from leaving the knife when a section thereof has been severed.

6. In a copying device of the character described, the combination with a suitable receptacle adapted to contain the continuous impression-strip, and the severing-knife having a relatively fixed portion provided with a
25 recess over which the strip passes, of a clamping device attached to the relatively fixed portion of the knife and having an engaging portion bearing upon the strip to clamp it in said recess. 30

PHILIP H. YAWMAN.

Witnesses:

CLARENCE A. BATEMAN,
G. WILLARD RICH.