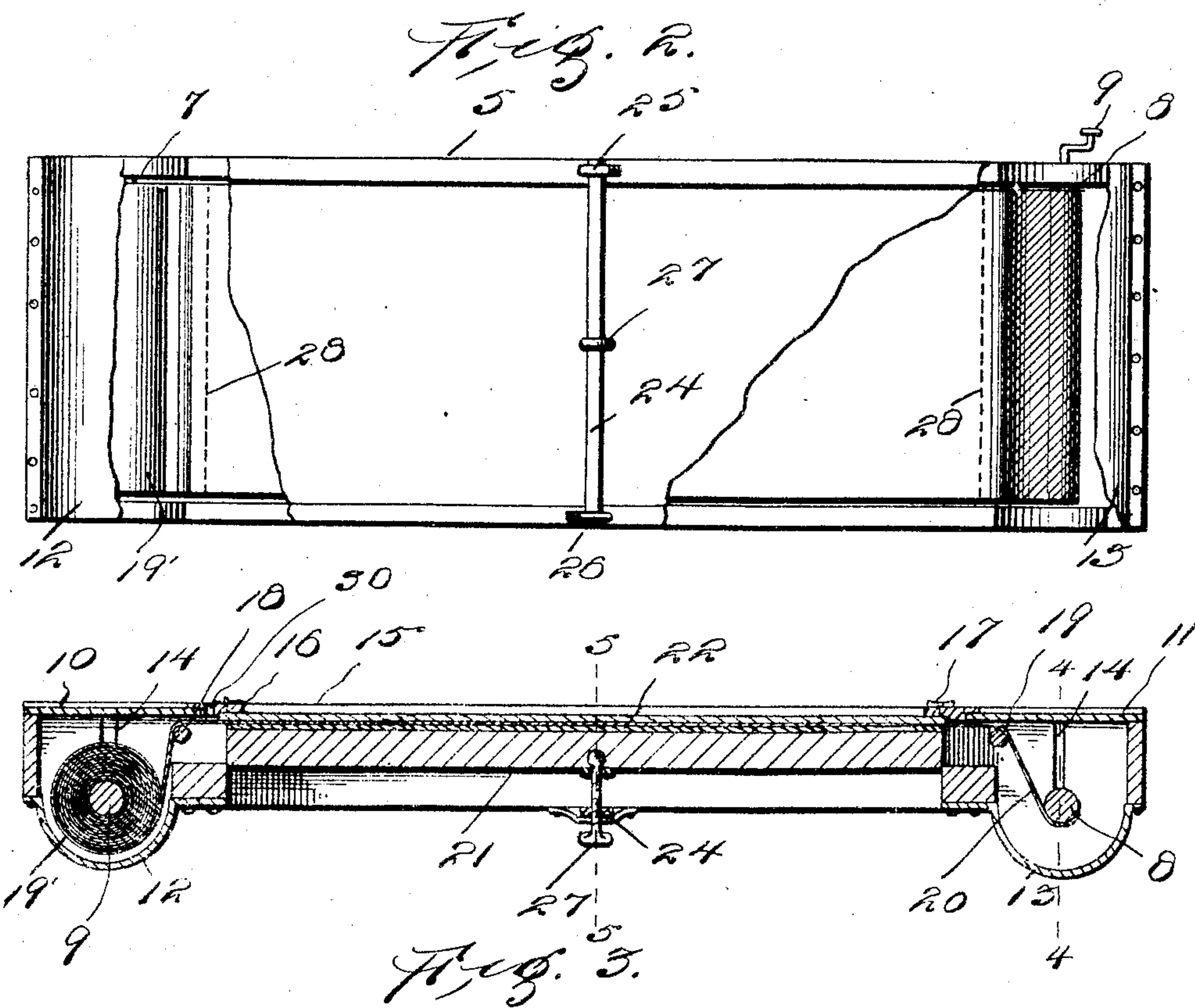
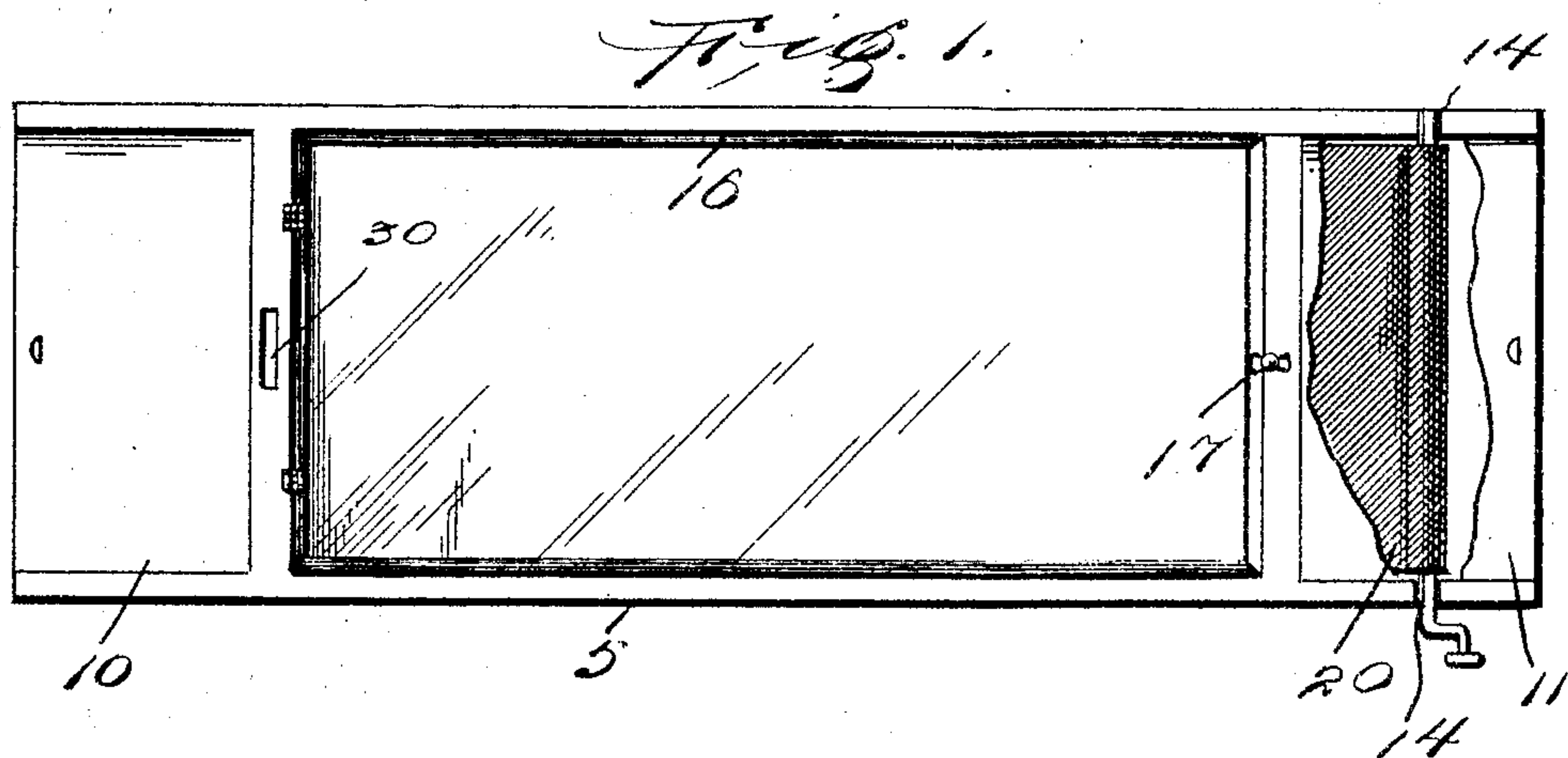


No. 785,566.

PATENTED MAR. 21, 1905.

G. C. OLSEN.  
ROLLER PRINTING FRAME.  
APPLICATION FILED MAY 17, 1904.

2 SHEETS—SHEET 1.



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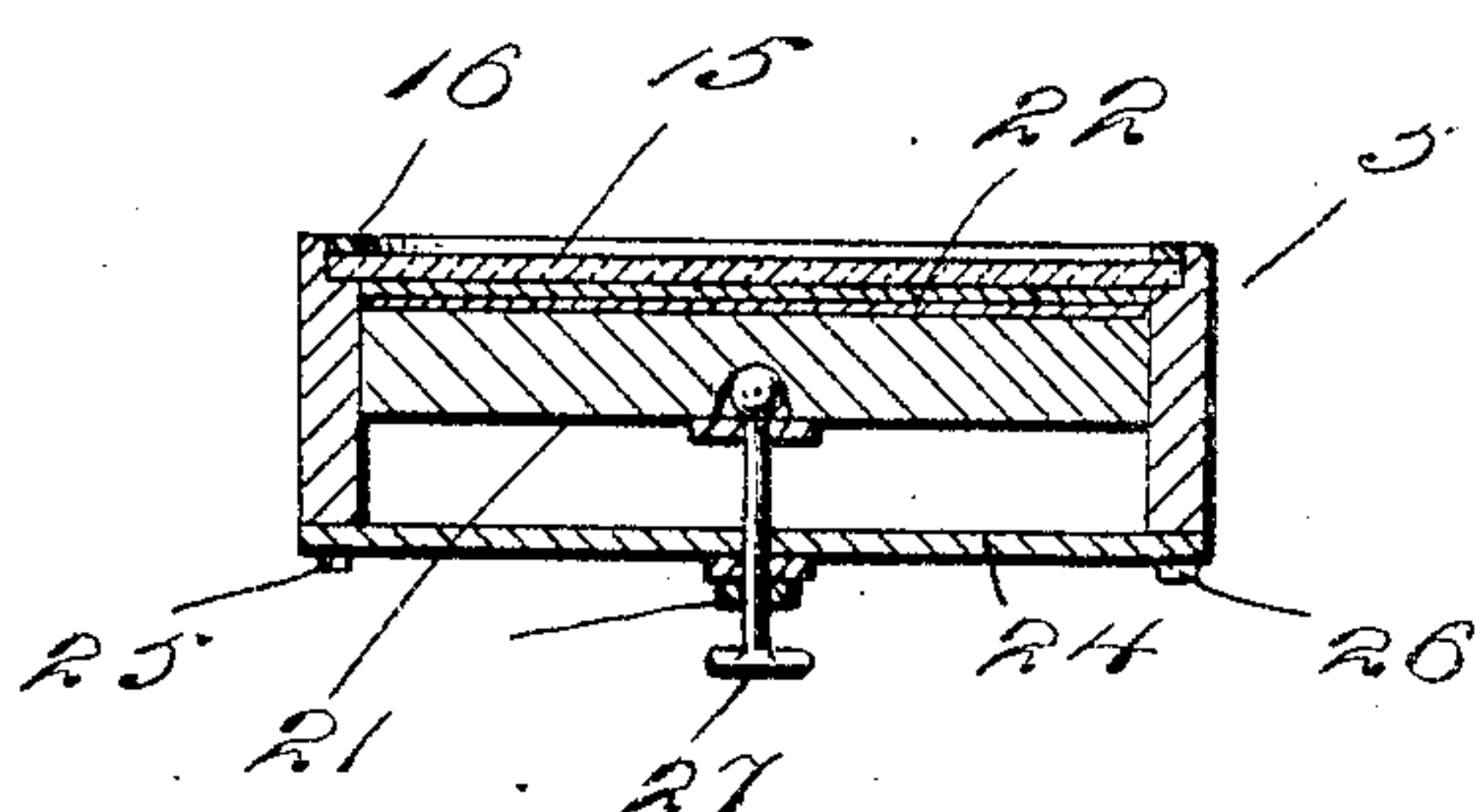
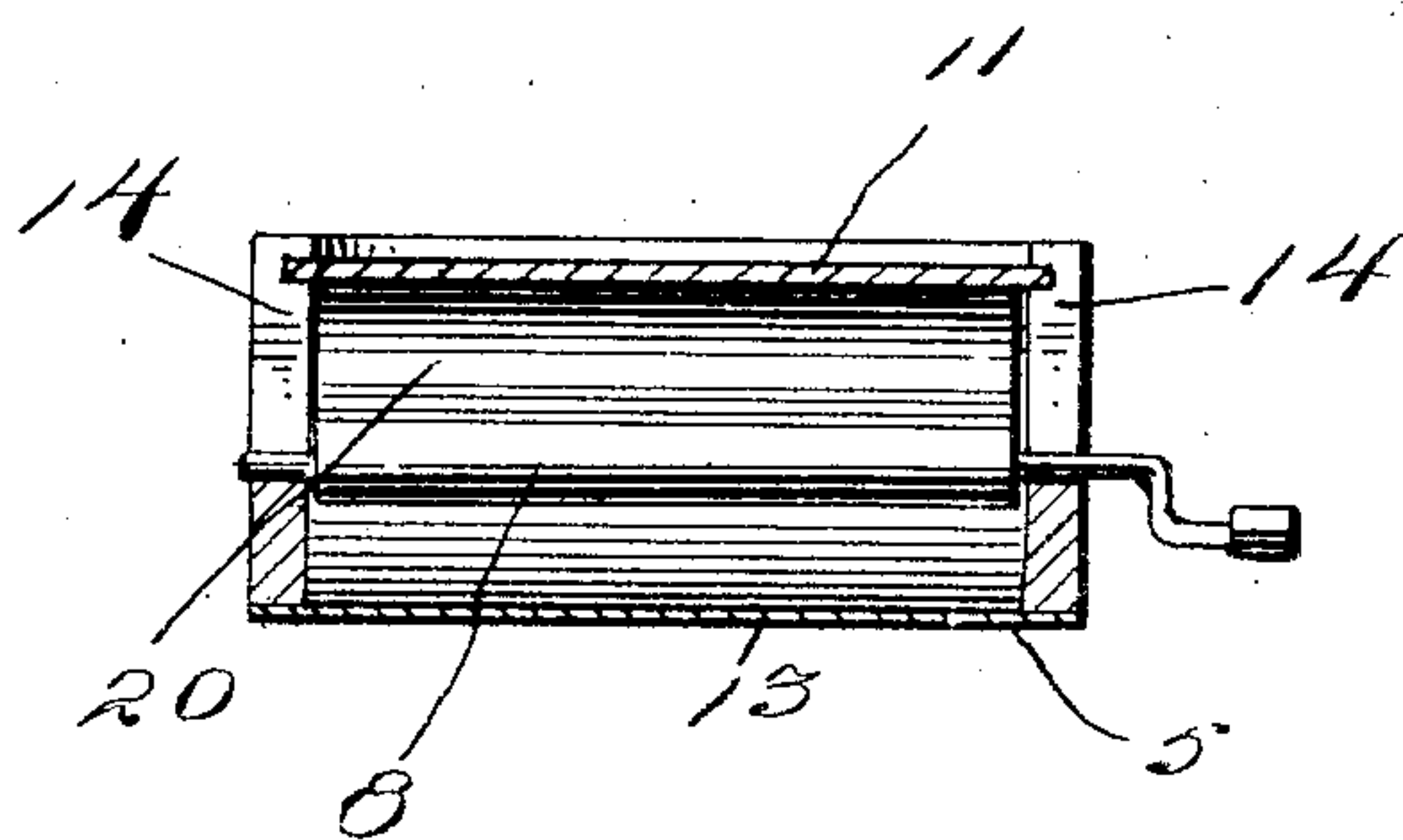
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2 SHEETS—SHEET 2.



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# UNITED STATES PATENT OFFICE.

GUSTAV C. OLSEN, OF MEDINA, NORTH DAKOTA.

## ROLLER PRINTING-FRAME.

SPECIFICATION forming part of Letters Patent No. 785,566, dated March 21, 1905.

Application filed May 17, 1904. Serial No. 208,443.

*To all whom it may concern:*

Be it known that I, GUSTAV C. OLSEN, a citizen of the United States, residing at Medina, in the county of Stutsman, State of North Dakota, have invented certain new and useful Improvements in Roller Printing-Frames; 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.

This invention relates to printing-frames; and it has for its object to provide a printing-frame wherein the paper to be printed will be in the form of a roll which will be unwound and passed beneath the negative into position for printing and after being printed will be wound upon a roller sufficiently far to shift the printed part of the paper from beneath the negative and bring a fresh or unprinted part of the paper into position for printing.

A further object of the invention is to provide a specific construction and arrangement of parts which will facilitate manipulation of the paper and of the negative and which will insure efficiency in operation.

In the drawings forming a portion of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a top plan view of the printing-frame, the housing at one end being partly broken away. Fig. 2 is a bottom view of the printing-frame, a part of the cover which holds the paper against the negative being broken away. Fig. 3 is a section taken longitudinally through the printing-frame.

Referring now to the drawings, the present printing-frame comprises a rectangular box 5, in the ends of which are journaled the removable winding-rollers 7 and 8, the roller 8 having a crank 9, by means of which it may be rotated for a purpose to be presently explained. For convenience of description that side of the printing-frame which is turned toward the light during the printing operation will be called the "top," while the opposite side will be called the "bottom." The top of the box has at its end portions the cover-sections 10 and 11, which are slidably engaged in grooves in the sides of the box and which cover-sections extend over the rollers 7 and 8, there

being at the bottom of the frame and at the end portions thereof the arched housing 12 and 13, into which project portions of the paper that is wound upon the roller, as hereinafter described. The sides of the box are slotted, as shown at 14, to permit of introduction of the trunnions of the rollers and from which said trunnions may be withdrawn after the cover-sections 10 and 11 have been removed.

The top edges of the sides of the box 5 are rabbeted at their inner edges to receive and support the negative 15, from which the prints are to be made, the negative being held in the rabbets by means of the frame 16, which is hinged at one end to the box for movement to and from position to lie against the negative, the frame being held in its active position by the turn-button 17.

At the inner sides of the rollers 7 and 8 are guide-rollers 18 and 19, respectively, which are disposed to touch the plane of the film-face of the negative.

The paper upon which the prints are to be made is in the form of a long strip which is rolled up upon the roller 7, the outer end of the roll of paper having a section of black paper attached to it which incloses the sensitized portion of the roll. The roll of sensitized paper is shown at 19 and the section of black paper at 20. The black paper is drawn from the roller and is attached, by means of a gummed sticker or in any other suitable manner, to the roller 8, which latter is then rotated, by means of the crank 9, to wind the black paper thereon and draw the sensitized paper into position to cover the film-face of the negative. To hold the paper close against the negative, a back 21 is provided, which fits into the bottom of the box and has its inner face covered with felt or some other suitable soft material, which may lie against the paper and hold it in close contact with the negative. A cross-bar 24 is provided, which is disposed transversely of the bottom of the box 5 and the ends of which are engaged under the spring-hook clamps 25 and 26. A thumb-screw 27 is engaged through the bar 24 and is pivotally connected with the back 21, so that by adjusting the thumb-screw the desired pressure of the back against the



paper will be secured. Upon the back of the roll of paper are marked at intervals the transverse lines 28, the separation of each pair of lines being equal to the length of a print to be made, and in the back 21 is an opening 30, past which the lines are drawn as the paper is rolled onto the roller or drum 8. Thus by shifting the paper after each exposure until the next line appears through the opening the printed portion of the paper will be wound upon the roller or drum 8 and a new section of paper will be brought into position ready for printing.

It will be noted that with this arrangement the negative may be easily removed from the frame without disturbing the paper and a new negative substituted. Furthermore, after the strip of paper has been printed from one end to the other the paper may be detached from the roller 7 and the roller 8 may be removed with the paper wound thereon. When the paper is to be finally treated, it is removed from the roller 8 and manipulated in the usual manner.

While the present printing-frame is particularly designed for use in connection with such papers as are highly sensitive and printed by artificial light, it will of course be understood that it may be used with other papers, and, furthermore, that modifications of the specific construction shown may be made and that any suitable materials and proportions may be used for the various parts without departing from the spirit of the invention.

What is claimed is—

1. A printing-frame comprising a box including a central compartment and end compartments, the central compartment being rabbeted at its upper edges to receive and

support a negative, a frame hinged to the box and movable into and out of clamping relation to the rabbet, means for holding the frame in clamping position, a roller journaled in each end compartment and having means for rotating them, guide-rollers in the end compartments, a roll of paper mounted upon one roller and attached to the other roller, said paper passing over the guide-rollers, and a removable backing disposed in the central compartment in position to hold the paper against a negative disposed upon the rabbet.

2. A roller printing-frame comprising a box including central and end compartments communicating at their upper portions, the end compartments being slotted, winding-rollers having trunnions removably engaged in the slots, means for rotating the rollers, a closure for each end compartment, guide-rollers in each end compartment, a strip of paper mounted upon one winding-roller and passed over the guide-rollers and attached to the opposite winding-roller, the central compartment being rabbeted at its upper edge to receive and support a negative, a frame hinged to the box and movable into and out of clamping relation to the rabbet, means for holding the frame in clamping position, and a removable back disposed against the paper in position to hold it against a negative on the rabbet, said back when in position, being adapted to close the communication between the compartments in connection with the paper.

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

GUSTAV C. OLSEN.

Witnesses:

WILLIAM J. DWYER,  
MARY C. DWYER.