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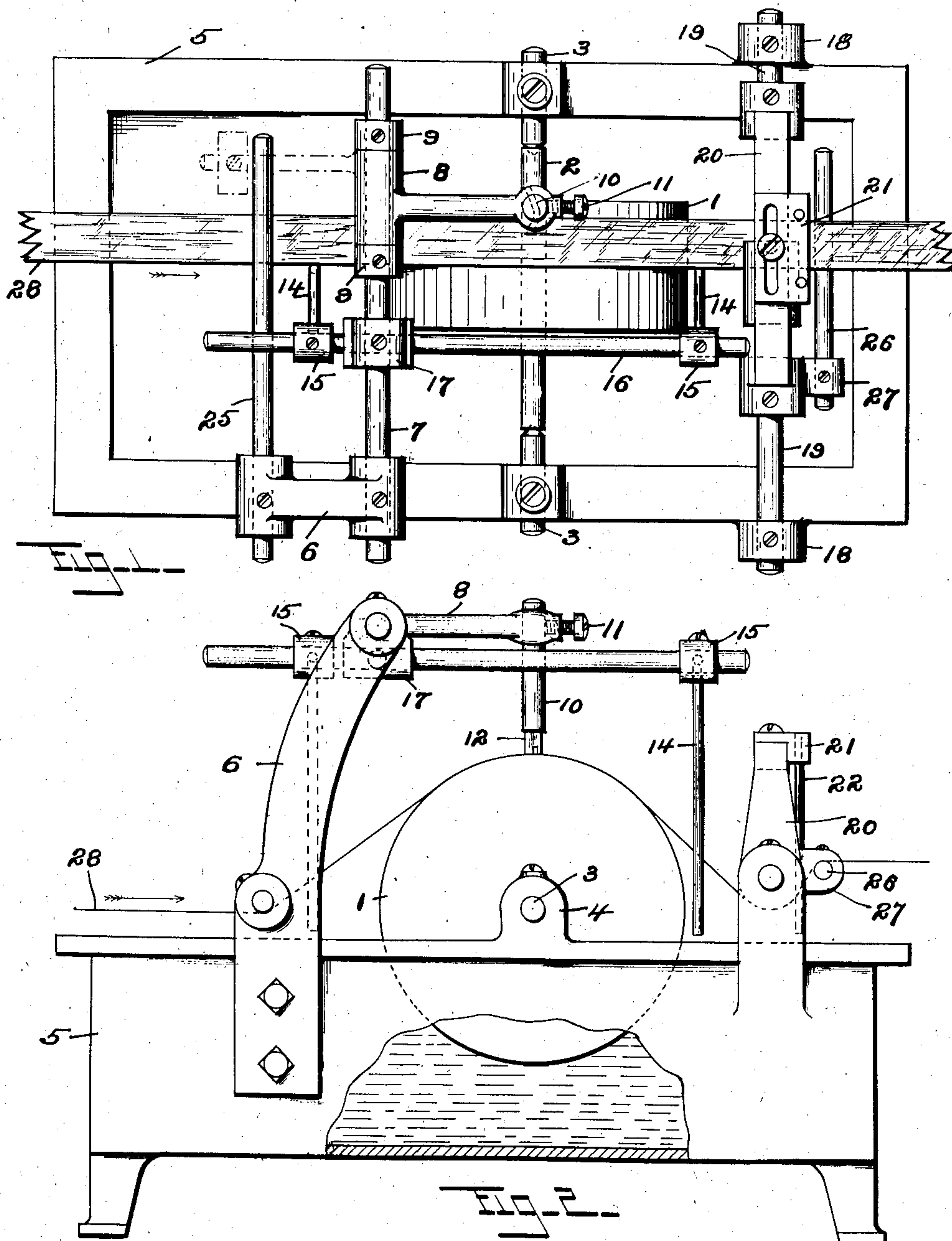
PATENTED OCT. 30, 1906.

H. F. ODENKIRCHEN & W. G. COWELL.

GLUING MACHINE.

APPLICATION FILED DEC. 30, 1905.

2 SHEETS—SHEET 1.



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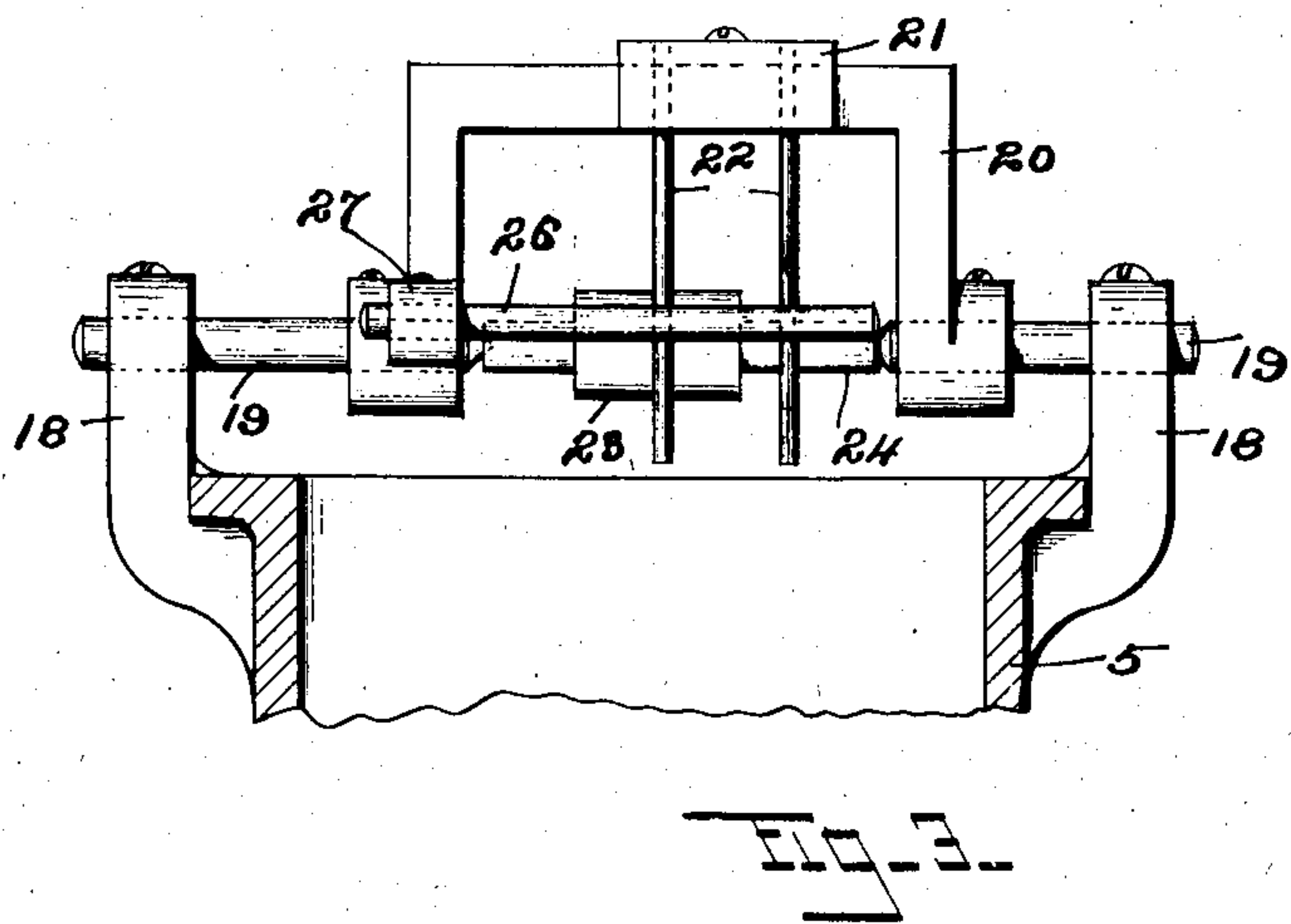
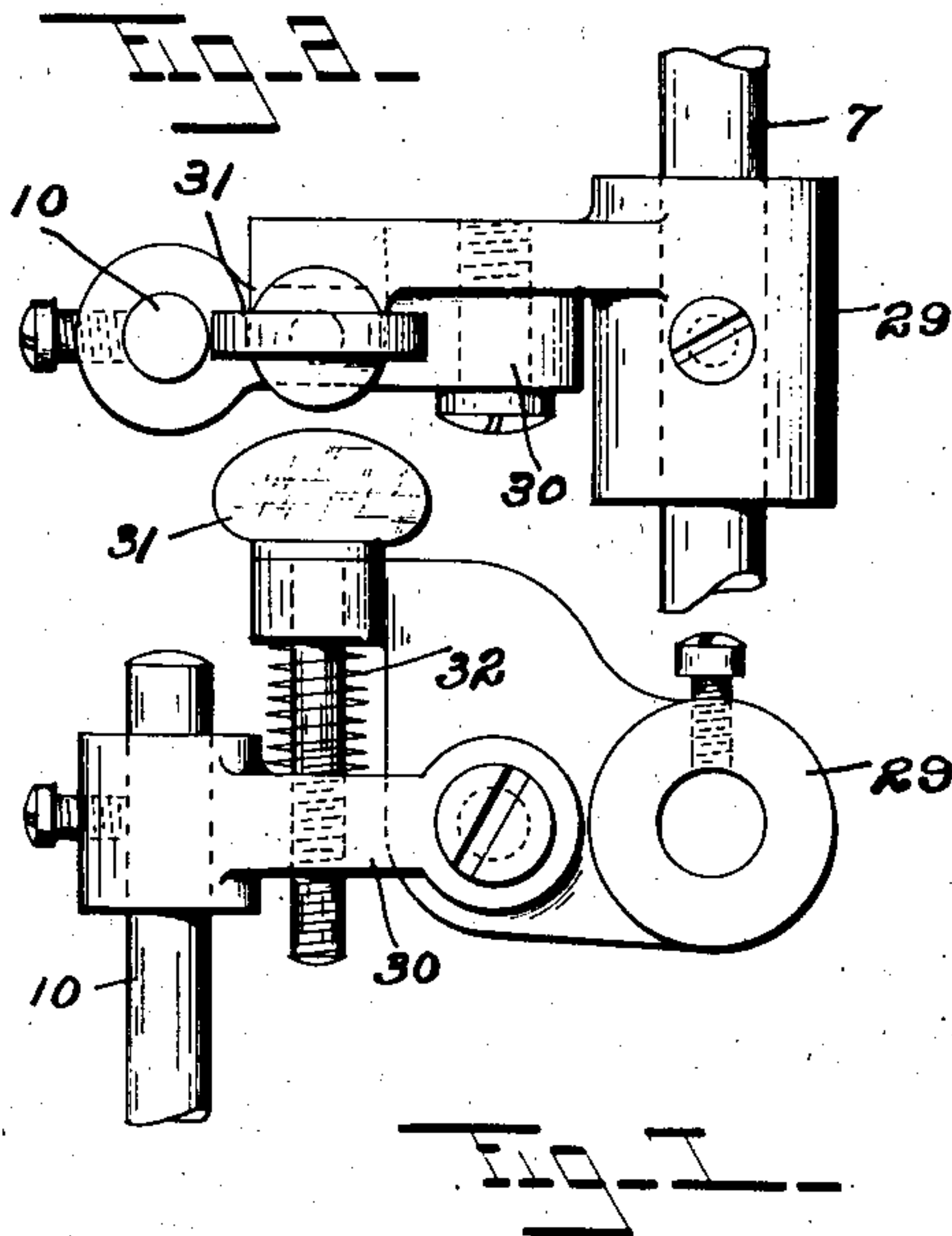
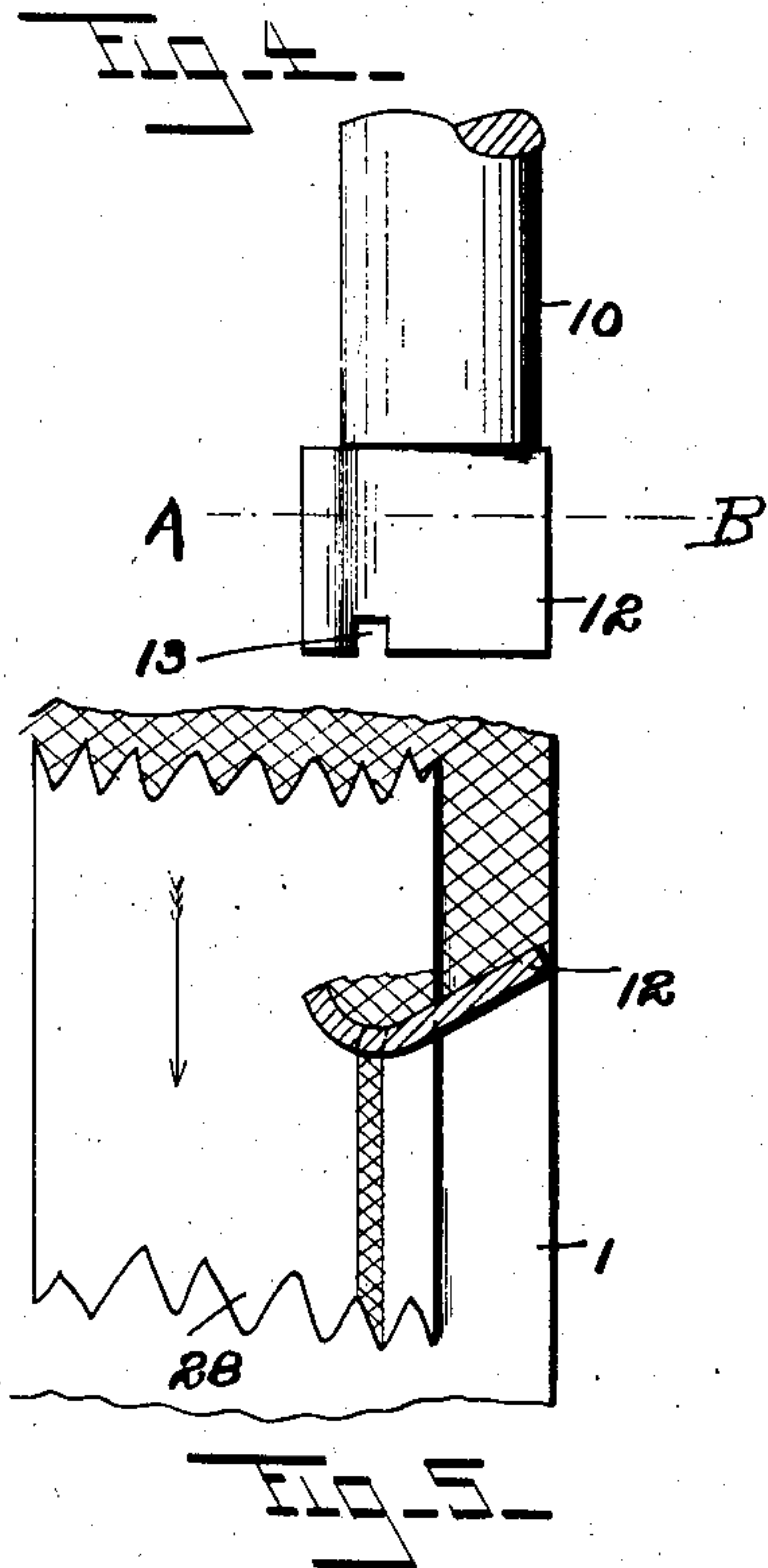
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2 SHEETS—SHEET 2.



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# UNITED STATES PATENT OFFICE.

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## GLUING-MACHINE.

No. 834,588.

Specification of Letters Patent.

Patented Oct. 30, 1906.

Application filed December 30, 1905. Serial No. 293,902.

*To all whom it may concern:*

Be it known that we, HENRY F. ODENKIRCHEN and WILLIAM G. COWELL, citizens of the United States, residing at New Haven, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Gluing-Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

Our invention relates to new and useful improvements in gluing-machines, and has for its object, among other things, the construction of a device of this character which will automatically glue both sides of a paper strip for a box-covering.

To these and other ends our invention consists in the gluing-machine having certain details of construction and combinations of parts, as will be hereinafter described, and more particularly pointed out in the claims.

Referring to the drawings, in which like numerals of reference designate like parts in the several figures, Figure 1 is a plan of our improved gluing-machine complete. Fig. 2 is a side elevation thereof. Fig. 3 is an elevation of the yoke and adjacent parts. Fig. 4 is an enlarged view of a portion of the scraper. Fig. 5 is a sectional plan view thereof upon line A B of Fig. 4; and Figs. 6 and 7 are a plan and an elevation, respectively, of a modified form of scraper mechanism.

In the practice of our invention we provide a gluing-roll 1, fixed upon a shaft 2, that is rotatably mounted upon the center pins 3, fixed in the lugs 4 on the trough 5, containing the liquid glue. Within the bracket 6 is secured a rod 7, carrying a loosely-mounted arm 8, that is held against endwise movement by the collars 9. The scraper 10 is adjustably secured within said arm by the screw 11 and has a cylindrical body portion that terminates at one end in the blade 12, which is curved as shown in Fig. 5, with a notch 13 in the under edge thereof.

In front and rear of the roll 1 are the guide-rods 14, which are fixed in collars 15, that are slidable upon a rod 16; adjustably secured within a block 17, movably mounted upon

the rod 7. These guide-rods are adjustable either toward or away from the axis of the roll or parallel therewith, as desired.

Fixed within the lugs 18, integral with the trough 5, are the center pins 19, that are connected by the yoke 20. Adjustably secured upon this yoke is a plate 21, carrying the downwardly-projecting guide-rods 22. Between the inner ends of the center-pins 19, and mounted thereon is the guide-roll 23, which is integral with the shaft 24. It is preferable that this guide-roll should be rotatably mounted; but in some cases we prefer to hold it rigid.

Parallel with the shaft 2 and upon one side of the roll is the guide-rod 25, that is fixed within the bracket 6, and upon the opposite side of said roll is the scraper-rod 26, that is fixed within a lug 27 upon the yoke 20. The paper strip to be glued (designated as 28 in the drawings) is fed from a roll, conveniently located, into the machine and passes under the guide-rod 25 and over the top of the roll 1, which takes up the glue within the trough 5 and covers the under side of the strip, after which it passes under the guide-roll 23 and over the scraper-rod 26, which removes the excess or surplus glue therefrom. Guide-rods 14 and 22 are so arranged that the strip will pass over the gluing-roll 1 and leave a portion of the same exposed upon either side thereof, as shown in Fig. 1.

The scraper 10 is so adjusted that the blade 12 will lie with a portion thereof upon the top of the strip and the remaining portion upon the exposed periphery of the gluing-roll, as shown in Fig. 5. During the rotation of the roll the glue from the exposed portion thereof will be scraped therefrom by the blade 12 and thrown onto the top of the strip by reason of the angle and curvature of said blade, and only a portion thereof will pass through the notch 13, such portion remaining upon the top of the strip. This notch is so shaped and sized that it will only permit a predetermined quantity of glue to pass there-through. The roll 23 is adjusted so as only to have a contact with a portion of the top



surface of the strip as the same is passing thereunder. This is to prevent the scraping of the glue from the top of the paper strip.

For some classes of work the blade 12 can be made without the notch 13, in which case the glue would flow around the edge of the curved portion of the blade onto the top of the paper strip. This manner of gluing the strip does not distribute the glue as uniformly as by the use of the notch 13, but for certain qualities of glue and work it is preferable.

As hereinbefore described, the blade 12 is held upon top of the roll by gravity; but, if desired, it may be held thereon with a uniform mechanical tension, and in Figs. 6 and 7 I have shown one form of mechanism by which this may be accomplished, in which the numeral 29 designates a carrier which is fixed on the rod 7, 30 a swivel-block pivotally mounted upon said carrier, 10 the scraper, 31 a screw which is rotatable in a lug upon the carrier 29 and threaded into the swivel-block 30, and 32 a coil-spring surrounding said screw and abutting against said lug and swivel-block. By the adjustment of the threaded rod 31 and spring 32 the blade 12 may be caused to lie upon the paper and roll with the exact pressure.

There are minor changes and alterations that can be made within our invention aside from those herein suggested, and we would therefore have it understood that we do not limit ourselves to the exact construction herein shown and described, but claim all that falls fairly within the spirit and scope of our invention.

Having described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In a gluing-machine, the combination with a gluing-roll; of means for gluing both sides of a paper strip, or similar material, from the glue upon said roll and while said strip is passing over said roll.

2. In a gluing-machine, the combination with a gluing-roll; of means for gluing the entire surface of one side of a strip of paper, or similar material; and means for gluing a portion only of the other side of said paper, all of said glue being taken from said roll and applied while the paper is passing over the same.

3. In a machine for gluing paper, or similar material, the combination with a gluing-roll contacting with said paper; of a scraper having a contact with the periphery of said gluing-roll and so arranged as to move the glue from said roll onto the exposed surface of said paper.

4. In a gluing-machine, the combination

with a gluing-roll; of a scraper having a blade in contact with the periphery of said roll that removes the glue thereon and moves it in a direction across the face of said roll.

5. In a gluing-machine, the combination with a gluing-roll; of a scraper having a curved blade in contact with the periphery of said roll that removes the glue thereon and moves it in a direction across the face of said roll.

6. In a machine for gluing paper, or similar material, the combination with a gluing-roll contacting with said paper; of a scraper having a contact with the periphery of said gluing-roll and so arranged as to move the glue from said roll onto the exposed surface of said paper; and means for varying the pressure contact of said scraper.

7. In a machine for gluing paper, or similar material, the combination with a gluing-roll contacting with said paper; guides for holding said paper so as to expose a portion of said roll upon one side while the same is in contact therewith; and a scraper lying in part against said paper and in part against said roll.

8. In a machine for gluing paper, or similar material, the combination with a gluing-roll contacting with said paper; guides for holding said paper so as to expose a portion of said roll upon one side when the same is in contact therewith; and a scraper lying in part against said paper and in part against said roll, and having a notch in its bottom edge.

9. A scraper for a gluing-machine having a cylindrical body portion terminating at one end in a blade 12 curved parallel to its length, whereby the glue is moved in a direction at substantially a right angle to said body portion, and having a notch 13 in the bottom edge thereof.

10. In a gluing-machine, the combination with a gluing-roll; of means for depositing glue upon one side of a strip of paper, or similar material; means for depositing glue upon the other side of said strip of paper, all of said glue being taken from said roll and applied while the paper is passing over the same; and means for removing a portion of the glue from one side of said strip of paper after the same has been deposited thereon.

11. In a machine for gluing paper, or similar material, the combination with a gluing-roll; means for supplying glue to the periphery thereof; means for guiding the paper against a portion of the periphery of said gluing-roll, whereby one side of said paper is brought in contact with said glue; and means for distributing a portion of the glue upon said gluing-roll onto the other side of said paper while the same is in contact with said gluing-roll.

12. In a gluing-machine, the combination  
with a gluing-roll; of means for gluing one  
side of a strip of paper, or similar material;  
means for gluing a portion only of the other  
5 side of said strip of paper, all of said glue be-  
ing taken from said roll and applied while  
said strip of paper is passing over the same;  
and means for guiding said strip of paper  
after it has left said roll, said means compris-  
10 ing a guide-roll adjustably mounted so as

only to have contact with the unglued por-  
tion of said strip of paper.

In testimony whereof we affix our signa-  
tures in presence of two witnesses.

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WILLIAM G. COWELL.

Witnesses:

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