

920,272.

Patented May 4, 1909.
3 SHEETS—SHEET 1.

Fig. 1.

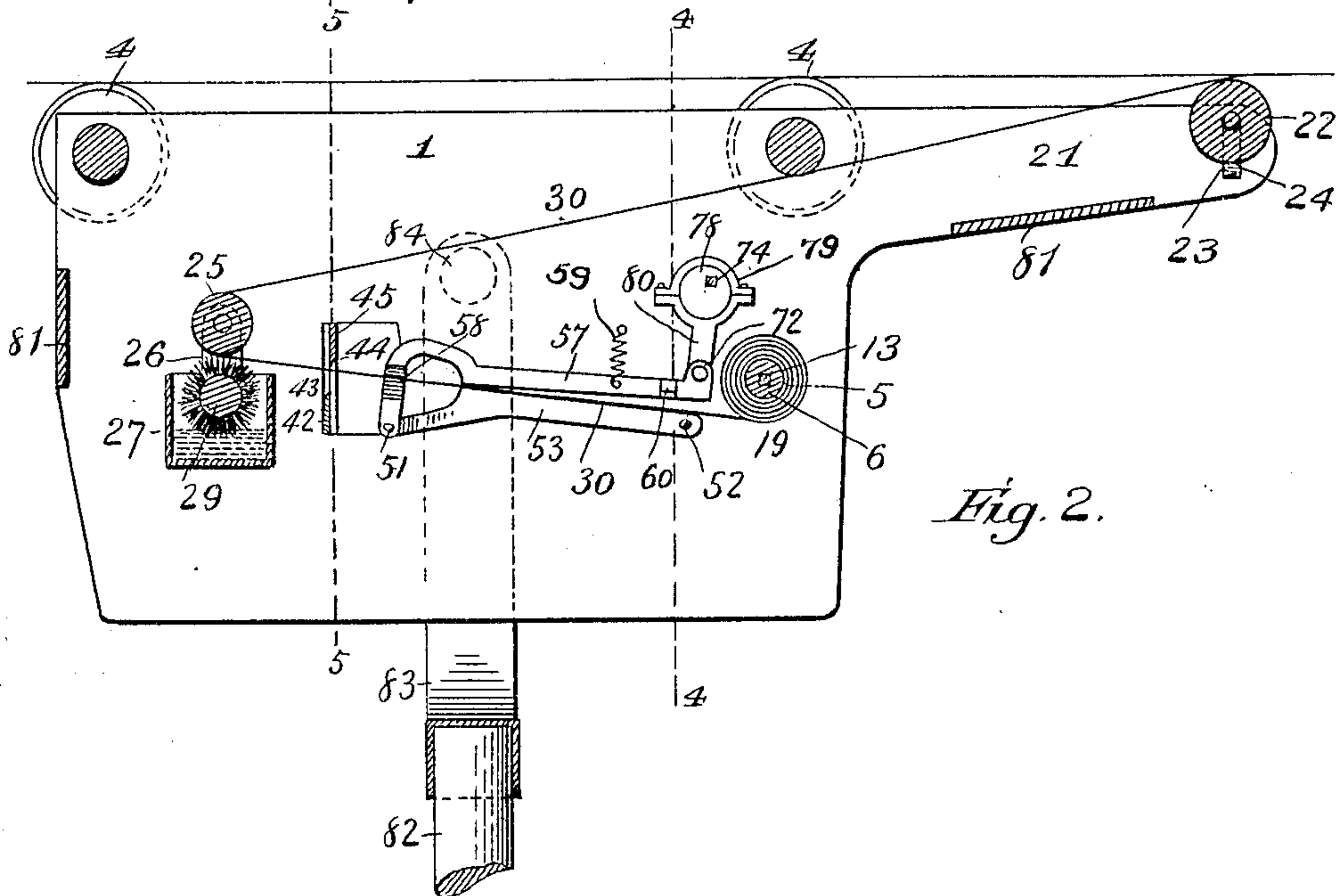
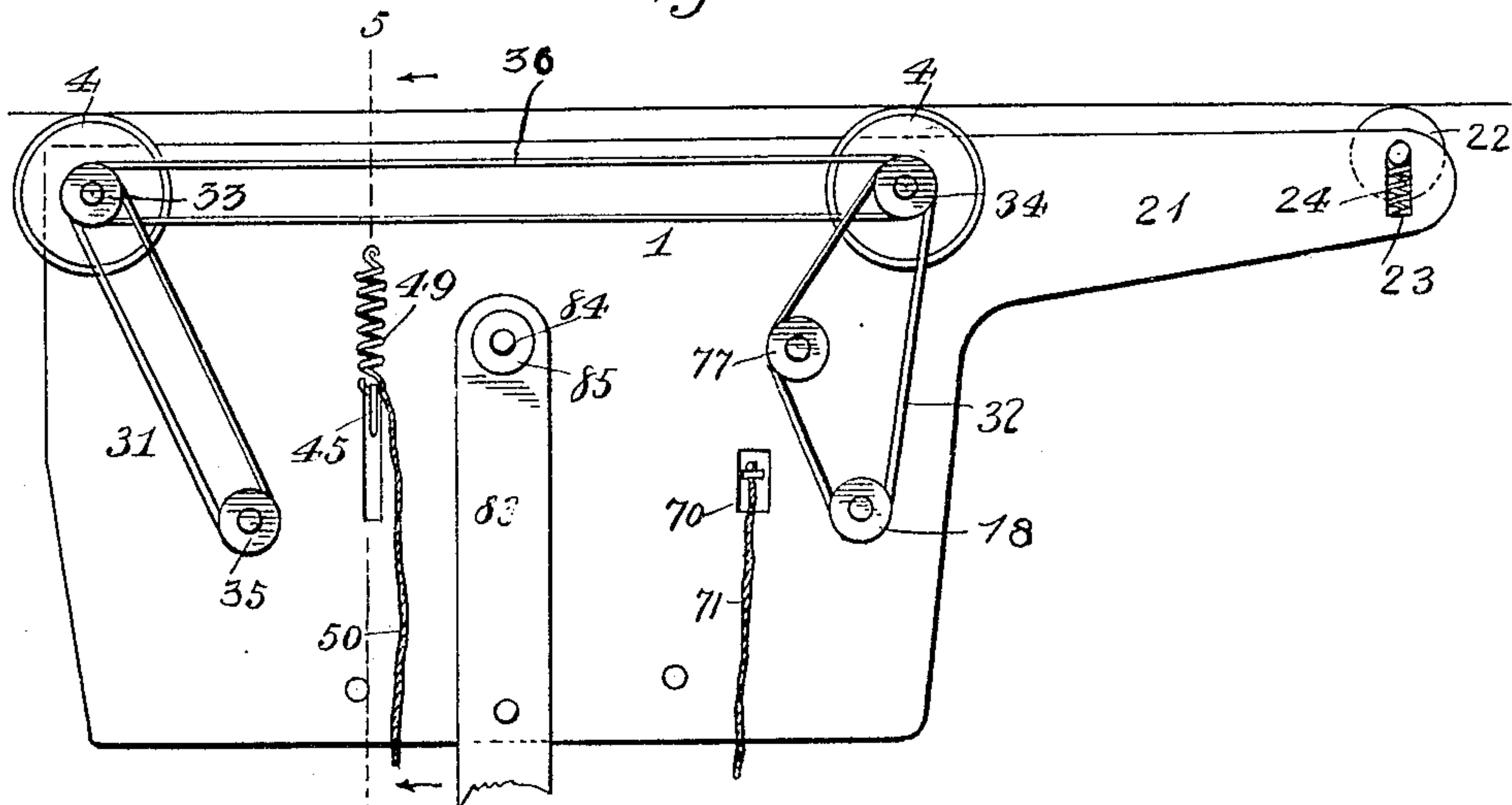


Fig. 2.

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PAPER HANGING MACHINE.
APPLICATION FILED MAR. 26, 1908.

Patented May 4, 1909.

3 SHEETS—SHEET 2.

920,272.

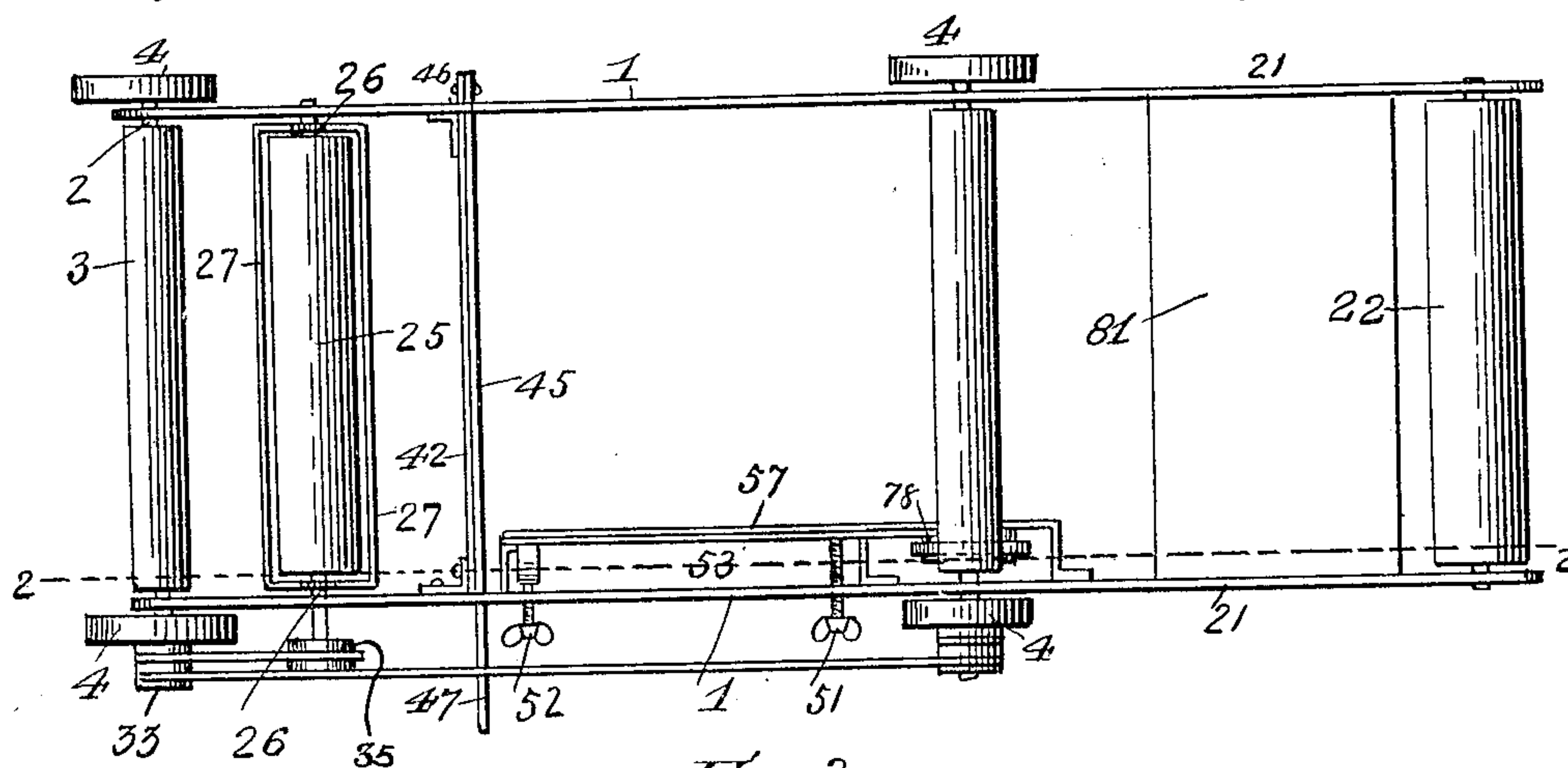


Fig. 3.

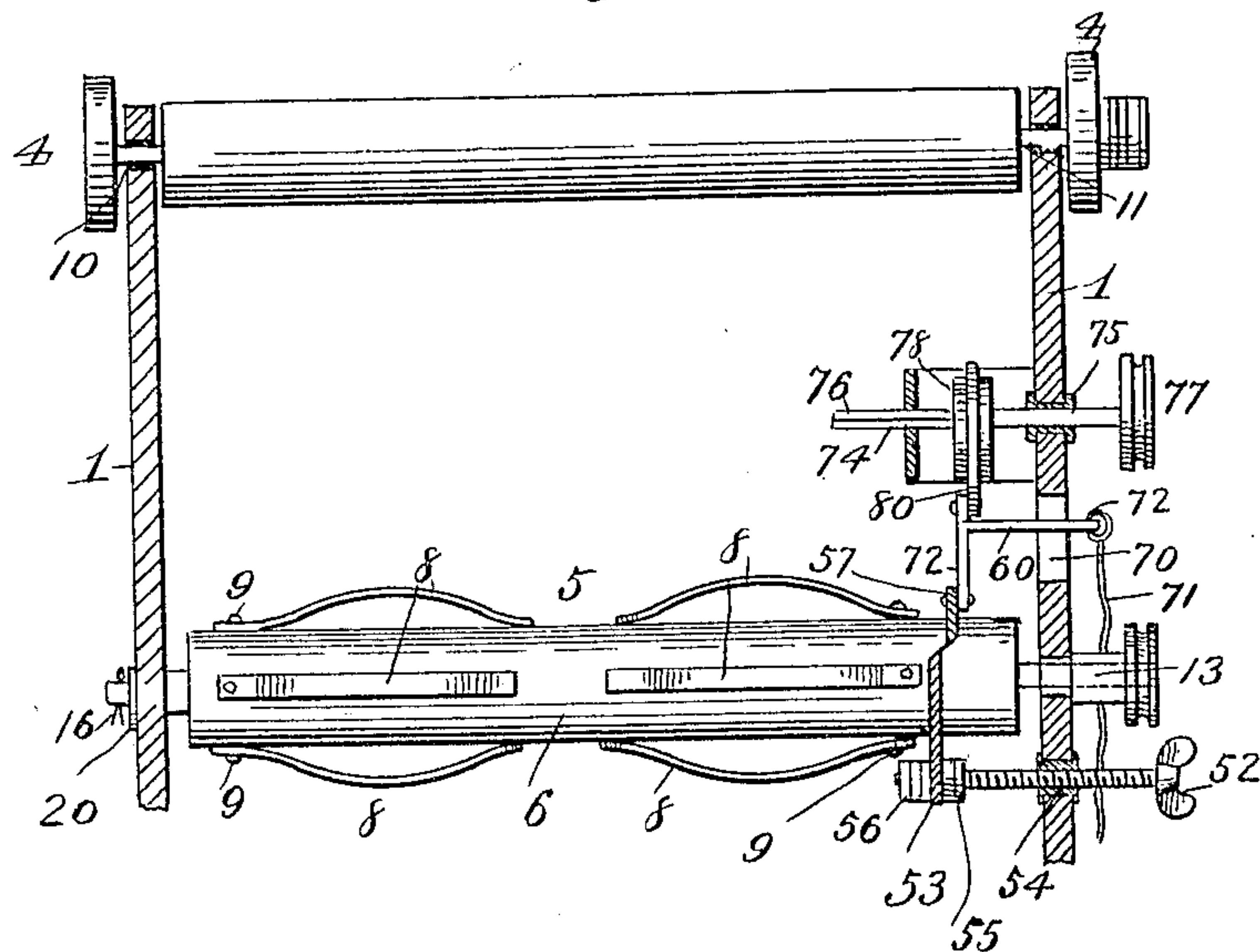


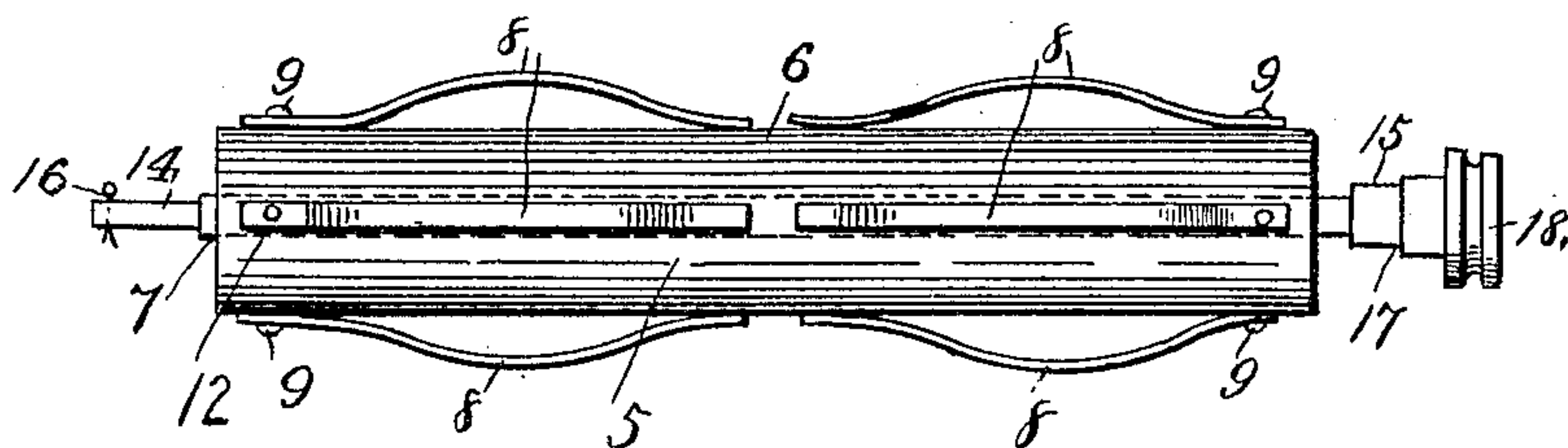
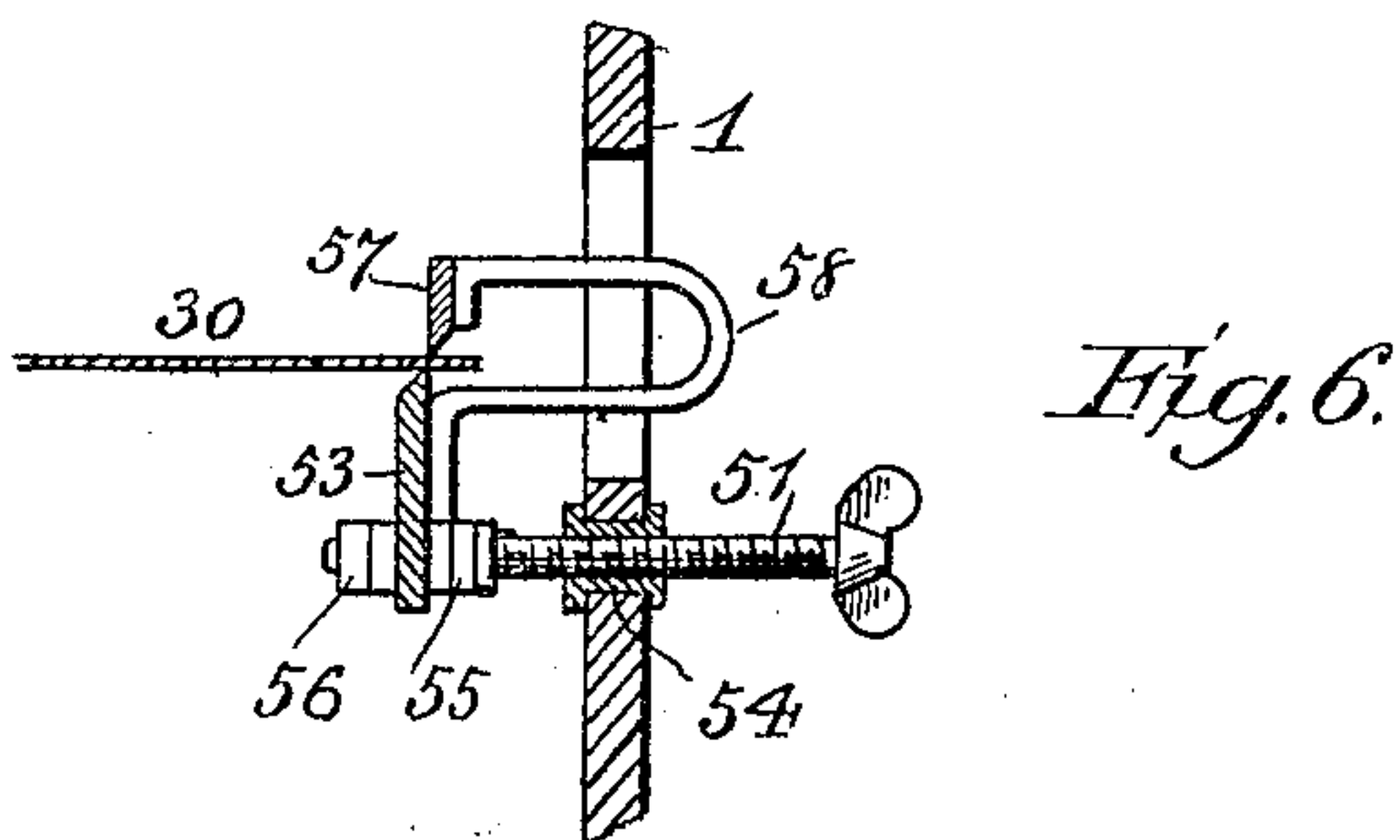
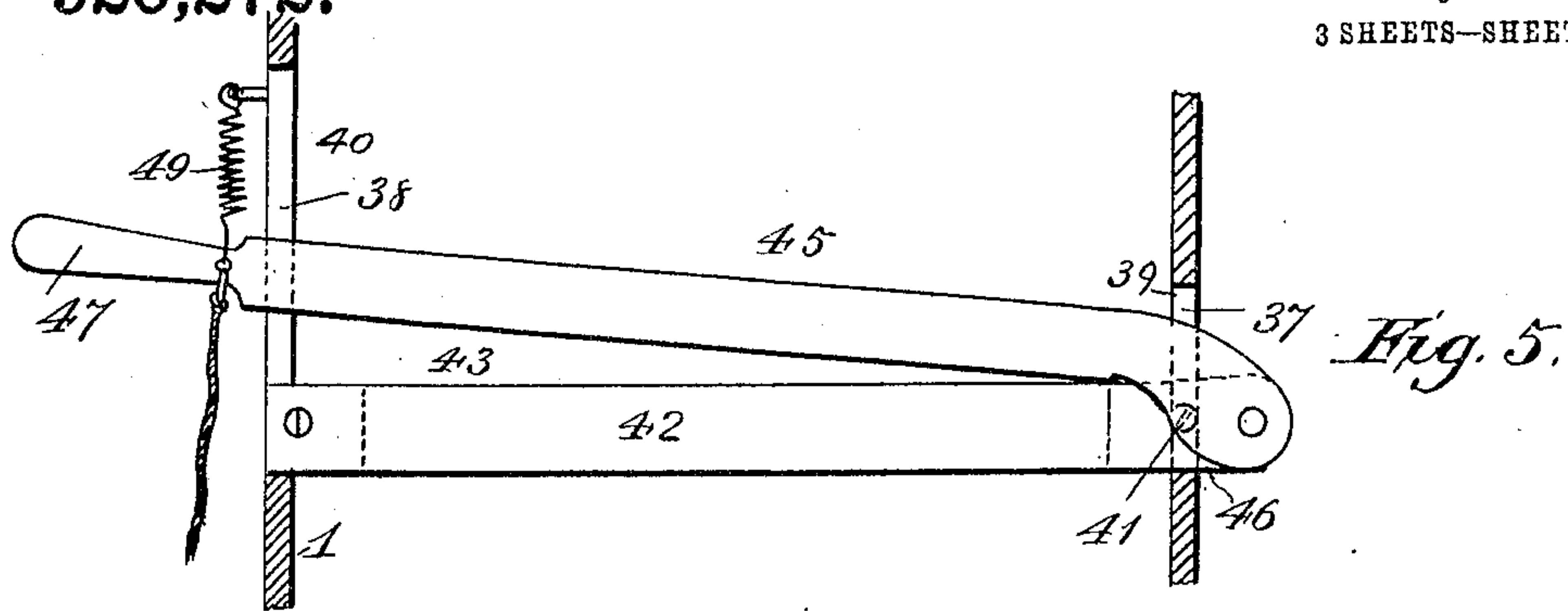
Fig. 4.

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UNITED STATES PATENT OFFICE.

GEORGE COOK, OF LOUISVILLE, KENTUCKY.

PAPER-HANGING MACHINE.

No. 920,272.

Specification of Letters Patent.

Patented May 4, 1909.

Application filed March 26, 1908. Serial No. 423,454.

To all whom it may concern:

Be it known that I, GEORGE COOK, a citizen of the United States, residing at Louisville, in the county of Jefferson and State of Kentucky, have invented certain new and useful Improvements in Paper-Hanging Machines; and I do 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 machines for hanging paper, and has for its object to provide a machine which will automatically unroll and trim the paper and paste it on the wall without the necessity of touching the paper with the hands.

Another object is to provide a machine of this kind which may be rolled along the wall or ceiling after the manner of a carpet sweeper, and which will at the same time automatically unwind paper from a roll, cover it with paste and place it upon the wall in correct position.

Another object is to provide in a machine of this kind convenient means for transversely cutting off the paper, and means for trimming the paper.

Still another object is to provide in a machine of this kind suitable means for carrying paste which will permit the machine to be used either on the ceiling or side wall without changing any of its adjustments.

For these and other objects which herein after appear my invention consists of certain novel arrangements and combinations of parts of which the herein described paper hanging machine is an embodiment.

While herein I describe minute details of my invention I do not limit myself to these as the same may be greatly varied without departing from the spirit and scope of the invention.

In the annexed drawings forming a part of this specification, and in which like reference characters designate like parts throughout the several views, Figure 1 is a side elevation of my device as applied to the ceiling of a room, Fig. 2 is a longitudinal vertical sectional view taken on the line 2—2 of Fig. 3, Fig. 3 is a top plan view partly in section, Fig. 4 is a transverse sectional view taken on the line 4—4 of Fig. 2, Fig. 5 is a transverse sectional view taken on the line 5—5 of Fig. 2 looking in the direction of the arrows,

Fig. 6 is a transverse sectional view in detail taken on the line 5—5 of Fig. 2 looking in the direction opposite to the arrows, and Fig. 7 is an elevation of the compressible roller.

Referring more particularly to the drawings, the numeral 1 indicates the side pieces of the machine frame. Axles 3 extend transversely through the side pieces near the upper edges thereof and are provided at their ends with rubber-tired wheels 4 which are adapted to travel over the surface to be papered. A compression roller 5 is journaled between the side pieces preferably beneath one of the axles 3. This roller consists of an elongated cylinder 6 having a central longitudinal square bar to receive a square axle or shaft 14, the ends of which extend through the side pieces of the machine frame and are held in place by a cotter-pin 16 extending through one end of the said shaft and a shoulder 17 formed at the other end of the shaft. The outer surface of the cylinder is provided with longitudinally extending outwardly curved leaf springs 8, which are attached at their upper ends to the cylinder by screws 9.

To remove the cylinder 6 from the machine, the key 16 is removed and the shaft 14 withdrawn from the cylinder. The cylinder, thus removed, may be inserted through the center of a roll of wall paper, the expansive tendency or force of the springs 8 holding the roll of paper firmly in place. The cylinder may be then replaced in position, and, if desired, a washer 20 may be interposed between the key 16 and the adjacent side piece of the frame. Longitudinal extensions 21 are formed at the upper rear corners of the side pieces between the ends of which is rotatably mounted a pressing roller 22, the axle of which is slidably mounted in slots 23 and the ends of said axle are normally held at the inner ends of the slots by push springs 24 whereby the roller 22 is caused to firmly bear against the ceiling or other surface to be papered.

A roller 25 is mounted beneath the roller 3 at the front end of the machine, the ends of the roller axle being journaled in supports 26 arranged at the ends of the paste vessel 27, said supports also serving as hangers for the paste vessel whereby the latter is permitted to swing in either direction with the roller axle as a center. Rotatably mounted within the paste vessel is a paste brush roller

29 the bristles of which are adapted to dip into the paste contained in said vessel.

In practice, as the roll 19 unwinds, the paper 30 passes between the rollers 25 and 29 and then rearwardly over the roller 22, the paper in passing between the rollers 25 and 29 rotating the latter and causing it to spread the paste in the receptacle 29 on the paper. If desired, belts or sprocket chains 31 and 32 may connect the rollers 5 and 25 with the wheels 4 by means of sprocket wheels or pulleys 33 and 34 on the wheels 4 and the pulley 18 on the roller 5 and pulley 35 on roller 25.

If desired, the sprockets 33 and 34 may be also connected by a sprocket chain 36. I also provide convenient and efficient means for cutting the paper transversely when the desired length has been applied to the wall. This I accomplish by the following mechanism. At convenient points of the side pieces 1 near the roller 25, I provide transverse openings 37 and 38 to the side walls of which are rigidly secured, as by means of screws 41, the lower stationary transverse blade 42 having the upper cutting edge 43 adapted to cooperate with the cutting edge 44 of an upper movable transverse blade 45, pivoted to the projecting end 46 of the blade 42 as clearly shown in Fig. 5 of the drawings.

The free end of the movable blade 45 projects through the opening 38 and is provided with a handle 47. This blade is normally held above or in spaced relation with the stationary cutting blade by a spring 49 and may be actuated in one direction against the tension of said spring by an operating cord 50 attached to the handle end thereof. Between the cutting blades 42 and 45 and the roller 5, in parallel relation with one of the side pieces 1, is mounted by means of thumb screws 51 and 52, a lower stationary trimming blade 53, the thumb screws passing through threaded bushings 54, and having screwed on their inner ends jam nuts 55 and 56, respectively, between which the blade 53 is mounted. By this arrangement the trimming blade 53 may be adjusted laterally or transversely to trim the wall paper at a greater or less distance from one edge.

Pivotally mounted upon the thumb screw 51 is an upper pivoted trimming blade 57 provided at its pivoted end with an outwardly curved portion 58 to receive one edge of the paper 30 and to permit it to pass between the trimming blades (see Fig. 6). A coil spring 59 is arranged between the free end of the movable trimming blade and one of the side pieces 1 to hold said blade normally in spaced relation with the stationary trimming blade. The free end of the pivoted trimming blade is also provided with a laterally projecting finger 60 which extends through an opening 70 in the adjacent side piece 1, an operating cord 71 being attached

to said finger whereby the pivoted trimming blade may be moved in one direction against the tension of the spring 59.

I will now describe an automatic arrangement for operating the pivoted trimming blade which may be detached whenever it is desired to operate said blade by the cord 71. An upwardly projecting ear 72 is formed at the free end of the pivoted trimming blade 57. A stub shaft 74 is mounted in a bushing 75 in the adjacent side piece above said blade, the inner end of said shaft being of square form, as indicated at 76 and the outer end thereof provided with a sprocket wheel or pulley 77 adapted to receive the band 32 whereby the shaft 74 is caused to rotate upon moving the machine over a surface.

A cam 78 is arranged near the inner end of said stub shaft and is received by an eccentric strap 79 at one end of a link 80 pivoted to the projecting ear 72 of the movable trimming blade. By this construction, it will be evident that, upon imparting movement to the shaft 74, the eccentric 78 will alternately raise and lower the eccentric straps 79 and thus operate the pivoted trimming blade.

Cross pieces 81 extend between the side pieces in order to more securely brace the latter. A handle 82 having a fork 83 to receive projections 84 extending from the side pieces of the machine frame is shown as a means for properly handling the machine.

In practice, the roll 19 having been sufficiently unwound to cause a portion of the paper 30 to pass between the rollers 25 and 29, respectively, and over the roller 22, the machine is moved in a direction away from the roller 22. The rollers 4 in passing over the ceiling or other surface to be papered cause the rollers 5 and 25 to unroll the paper and the eccentric 78 to operate the pivoted trimming blade. The machine is thus moved until the desired amount of paper has been unrolled as far as the cutting blades 42 and 45. The blade 45 is then actuated by pulling upon the cord 50 to cut the paper 30. The machine is then passed still farther over the surface to be papered until all the paper cut off by the pivoted cutting blade 45 has been applied to the wall by the roller 22.

From the foregoing description taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of the invention.

I claim as my invention:—

1. In a wall papering machine, a supporting frame, a roller to support a roll of wall paper journaled therein, a paste receptacle

5 pivotally mounted in said frame, a paste brush mounted in said receptacle, a guide roller journaled above said paste brush, and means for rotating the paste brush, guide roller and paper roll supporting roller by passing the machine over a surface.

10 2. A machine of the character described comprising a supporting frame having wheels to travel over a surface, a transverse roller to support a roll of wall paper, a paste tank pivotally mounted in said frame, a paste brush journaled in said tank, means for leading the wall paper directly over the paste brush, a spring-pressed roller at one end of
15 the machine to press the paper against a surface, and connections for rotating the paste brush and paper supporting roller for passing the machine over a surface.

20 3. A machine of the character described comprising a supporting frame, a paper supporting roller mounted therein, a paste receptacle pivotally mounted in said frame, a paste brush journaled in said receptacle, a guide roller mounted above said paste brush,
25 a stationary cutting blade arranged transversely in the machine frame between the guide roller and paper supporting roller and a pivoted cutting blade movable toward and from said stationary blade.

30 4. In a machine of the class described, a supporting frame, a paper supporting roller mounted therein, a paste receptacle pivotally mounted in said frame, a paste brush in said receptacle, a guide roller above the paste
35 brush, a longitudinally disposed trimming blade arranged in the frame beneath the portion of paper lying between the paper supporting and guide rollers, and a spring controlled pivoted trimming blade movable
40 toward and from said stationary blade, said blades coöperating to provide means for trimming the edge of the paper.

5. In a machine of the class described, the

combination with a supporting frame, of a paper supporting roller mounted therein, a
45 paste receptacle mounted in said frame, a guide roller above said receptacle, a paste brush beneath said guide roller, transversely disposed stationary and pivoted cutting blades to sever a portion of the paper from
50 its roll, and longitudinally disposed stationary and pivoted cutting blades for trimming the edge of the paper.

6. In a machine of the class described, the combination with a supporting frame, of a
55 paper supporting roller mounted therein, a paste receptacle mounted in said frame, a guide roller above said receptacle, a paste brush beneath said guide roller, transversely disposed stationary and pivoted cut-
60 ting blades to sever a portion of the paper from its roll, longitudinally disposed stationary and pivoted cutting blades for trimming the edge of the paper and means for adjusting the trimming blades laterally.

7. In a machine of the class described, the combination with a supporting frame, of a
paper supporting roller mounted therein, a paste receptacle, a paste brush therein, a
guide roller above the paste brush, a longi-
70 tudinally disposed laterally adjustable stationary trimming knife arranged in the frame under the portion of the paper lying between the guide and paper supporting rollers, a
pivoted trimming blade movable toward and
75 from the stationary blade and means for automatically actuating the pivoted trimming blade during the passage of the machine over a surface.

80 In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

GEORGE COOK.

Witnesses:

JOHN NEWTON MURPHY,
JOEL BIBLE.