

J. F. McAFEE.

WALL PAPER HANGING MACHINE.

No. 387,793.

Patented Aug. 14, 1888.

Fig: 1.

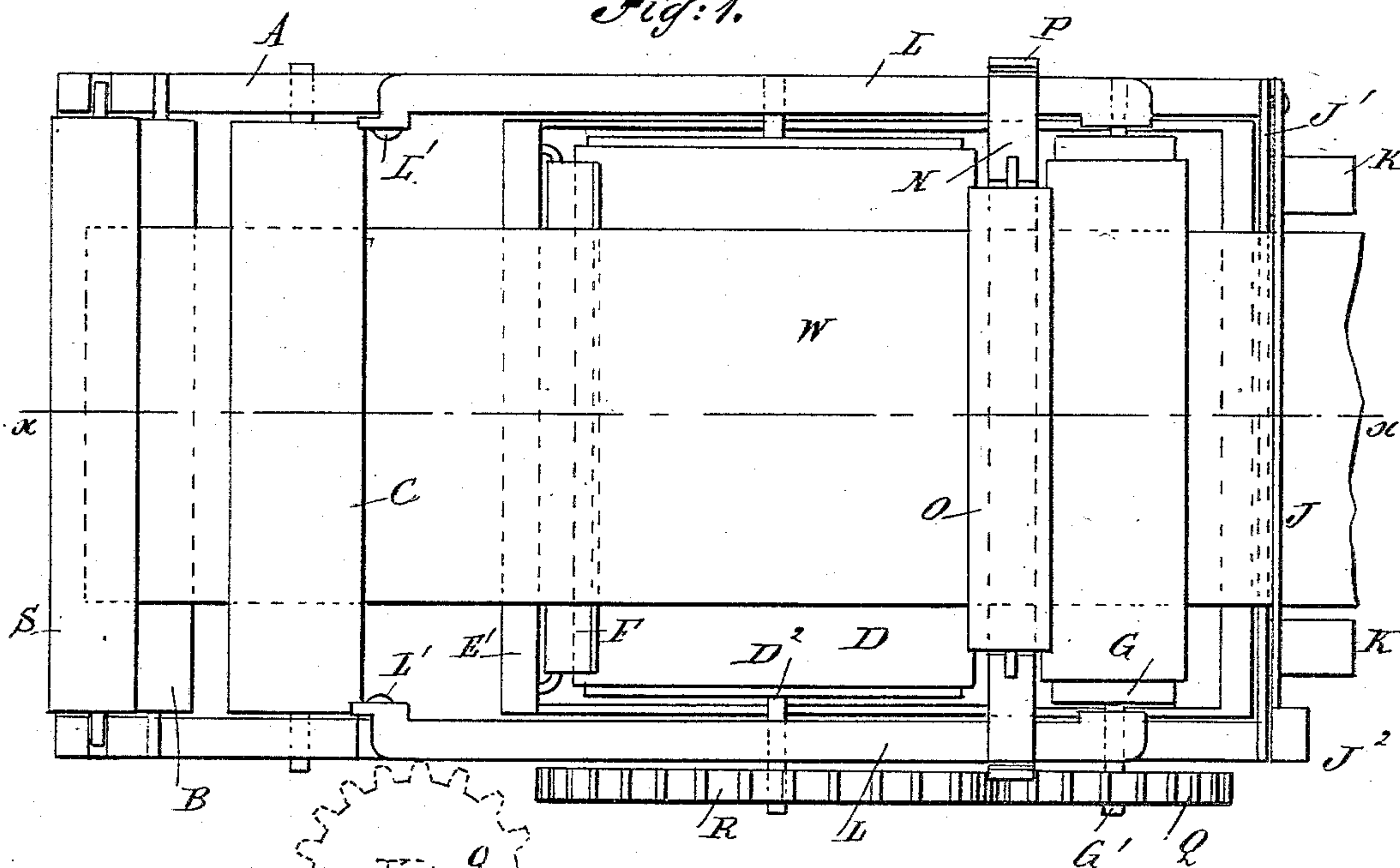
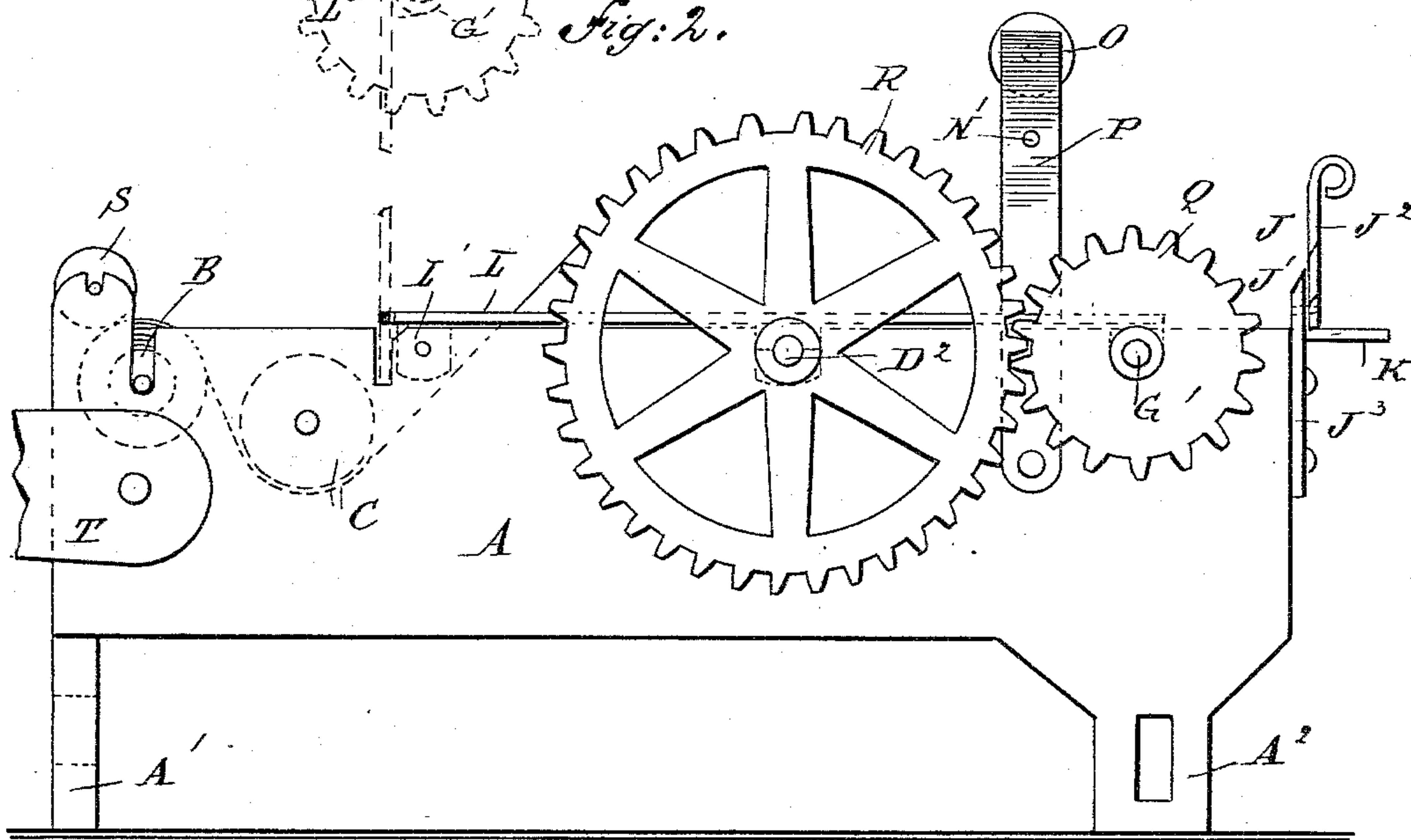


Fig: 2.



WITNESSES:

Chas. Nida.
C. Sedgwick.

INVENTOR:

J. F. McAfee.
Munn & Co.
ATTORNEYS.

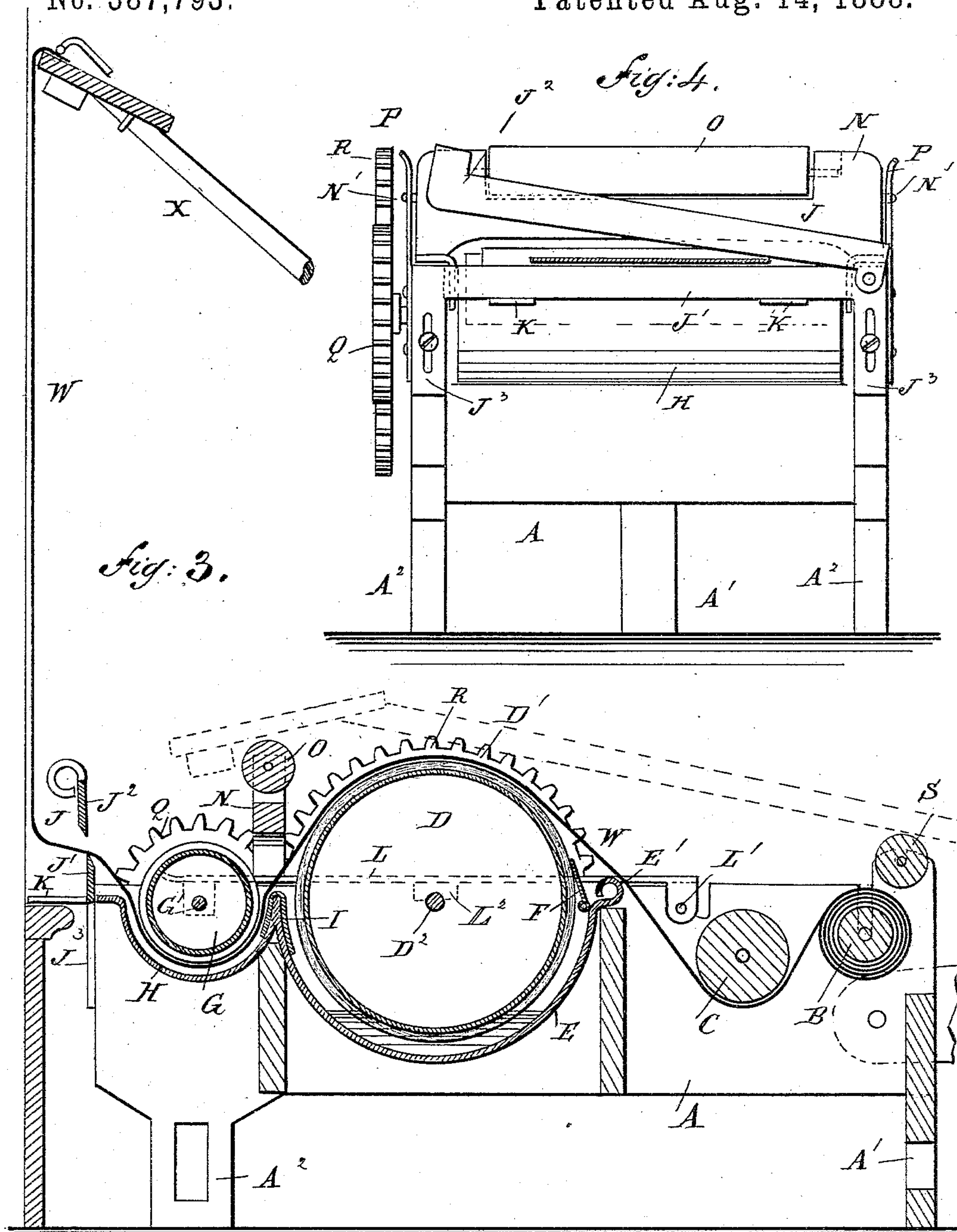
BY

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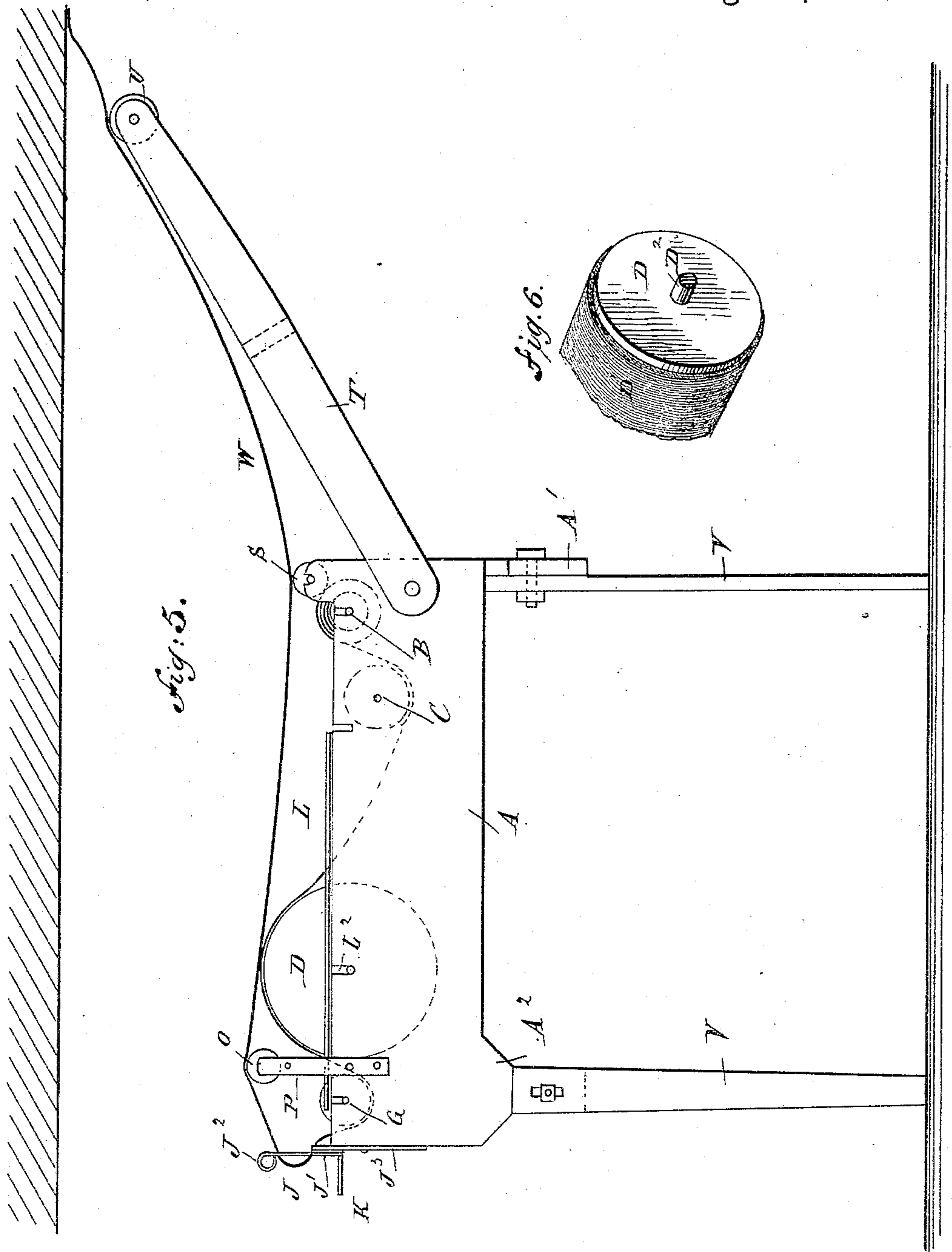


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UNITED STATES PATENT OFFICE.

JOHN F. McAFEE, OF PLEASANT HILL, MISSOURI.

WALL-PAPER-HANGING MACHINE.

SPECIFICATION forming part of Letters Patent No. 387,793, dated August 14, 1888.

Application filed August 27, 1887. Serial No. 248,035. (No model.)

To all whom it may concern:

Be it known that I, JOHN F. McAFEE, of Pleasant Hill, in the county of Cass and State of Missouri, have invented a new and Improved
5 Wall-Paper-Hanging Machine, of which the following is a full, clear, and exact description.

The object of my invention is to provide a new and improved machine for conveniently
10 applying paste to the back of wall-paper and cutting the paper from the roll in suitable lengths preparatory to hanging it on the wall.

My improved machine is used in connection with a clamp, for which I file an application for Letters Patent of even date herewith and
15 numbered 248,034.

The invention consists in the construction and arrangement of certain parts and details and combinations of the same, as will be fully described hereinafter, and then pointed out in
20 the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

25 Figure 1 is a plan view of the machine. Fig. 2 is a side elevation of the same. Fig. 3 is a longitudinal sectional elevation of the same on the line $x x$ of Fig. 1. Fig. 4 is an end elevation. Fig. 5 is a side elevation, as adapted
30 for hanging paper on ceilings. Fig. 6 is a detail view of the paste-roller.

A suitably-constructed frame, A, is provided at its front and in the middle with a single leg, A', and at its rear end it carries two legs, A'', one on each side. On the front end of the
35 frame A is placed in suitable bearings the paper-roller B, on which is wound the paper to be hung on the wall. Next to the paper-roller B is placed a guide-roller, C, mounted in suitable bearings in the main frame A, and under
40 which passes the paper from the paper-roller B.

Toward the rear end of the machine the paste-roller D is placed in suitable bearings on the main frame A, which roller D is provided on its rim with a fibrous covering, D',
45 and extends into the paste-pan E, surrounding the lower half of said roller D and secured to the frame A. The covering D' is preferably formed of wool yarn wound on the roller, as
50 shown in Fig. 6; but other yarn may be employed, and instead of the yarn woven fabric may be used. On the outer end of the paste-

pan E is formed the transverse rib E', over which the wall-paper passes from the guide-roller C to the paste-roller D. Instead of the
51 rib a rod may be employed. Next to the rib E is placed a scraper, F, fulcrumed on the paste-pan E and resting with its free end against the covering D' of the paste-roller D, so that
60 part of the paste is scraped off and returned to the bottom of the pan E.

On the main frame A, in rear of the paste-roller D, is placed in suitable bearings the friction-roller G, the lower half of which is surrounded by a drip-pan, H, secured to the main
65 frame A and carrying at its connection with the paste-pan E a strip of cloth, I, which serves to even the paste on the paper which passes from the paste-roller D under the friction-roller G and then to the knife J, located on the front
70 of the machine and in front of the friction-roller G.

The knife J consists of a stationary piece, J', on which is fulcrumed the cutter J'', said stationary piece being secured to the arms J'',
75 held adjustably on the front of the main frame A. From the stationary piece J' of the knife J project horizontally to the rear the lugs K, adapted to rest on the mop-board of the room, as illustrated in Fig. 3.
80

The shaft G' of the roller G is mounted in bearings secured to the side bars, L, pivoted at L' to the main frame A and adapted to swing upward into the position shown in dotted lines in Fig. 2 and carrying with them the said
85 roller G. On the under side of each side bar L is secured half of a bearing, L'', resting on top of the shaft D' of the paste-roller D, thus holding the latter in its bearings on the main frame A. The side bars, L, are connected with
90 each other by a cross-beam, N, held between the paste-roller D and the friction-roller G, and carrying on its top a roller, O. The side bars, L, are locked in place by springs P, secured by their lower ends to the sides of the
95 main frame A and engaging with their upper free ends the pins N', secured to the transverse beam N. On the shaft G' of the friction-roller G is secured a gear-wheel, Q, which meshes into the gear-wheel R, fastened on the shaft D' of the paste-roller D, so that when one is rotated the other rotates with it.
100

At the front end of the main frame A is held loosely a roller, S, and a frame, T, is piv-

oted on said front end of the main frame A, and carries at its outer end a roller, U, which latter, with the rollers O and S, is used when papering the ceiling of a room, as illustrated in Fig. 5. In this case I provide the legs A' and A² of the main frame A with extensions V, so as to raise the entire machine a suitable distance from the floor.

The operation is as follows: A roll of wall-paper is placed on the roller B and passed under the guide-roller C, and then the side beams, L, are swung up into a vertical position, as shown in dotted lines in Fig. 2. In order to swing the side beams upward it is necessary that the operator should first press the springs P outward so as to disengage the pins N', after which the side beams can be raised, carrying with them the friction-roller G. The paper is now conveniently passed over the paste-roller D and over the drip-pan H, so that the front end of the paper rests and is held on the knife J. The side beams, L, are then swung downward and locked in their normal position by the springs P again engaging the pins N'. The operator now places the main frame A against the wall to be papered, so that the lugs K rest on top of the mop-board of the wall. The clamp X, shown in Fig. 3, and for which I file a separate application, above referred to, is then fastened to the end of the wall-paper W, after which the operator lifts said clamp upward and places the upper end of the wall-paper against the wall, so that the paste on the paper causes it to adhere to the wall. The operator then releases the clamp X from the paper and presses it against the wall, as is more fully described in the other application above referred to. As soon as the paper is attached to the wall the operator presses the knife part J² downward, thus cutting off the paper to the desired length, as the relative positions of the lugs K and knife J are such that the cut-off end of the paper will reach to the top of the mop-board, on which the lugs K rest. It will be seen that when the operator raises the clamp X with the end of the paper attached thereto the paper is unrolled from the roller B, and on passing over the paste-roller D receives on its under side the necessary amount of paste for fastening it to the wall. The forward motion of the paper caused by the upward movement of the clamp X rotates the friction-roller G, which, by its gear-wheel Q meshing into the gear-wheel R, rotates the paste-roller D.

When the machine is not in use, the clamp X is placed and is supported on the rollers O and S, as shown in dotted lines in Fig. 3.

When it is desirable to paper a ceiling, I employ the extension-legs V and use the frame T, as illustrated in Fig. 5, but to which I lay no claim in this application. The paper then passes from the knife J over the rollers O, S, and U, and is applied to the ceiling by the clamp X in a manner similar to that above described in reference to papering the side wall. Thus it will be seen that with my im-

proved paper-hanging machine I am enabled to apply the paste on the back of the paper conveniently and to cut the paper the necessary length for the height of the wall.

The drip-pan H is so arranged that it will catch any paste which might otherwise drop on the floor or carpet, and said pan also catches and holds the end of the paper after it has been cut from the piece on the wall, and prevents the end from dropping on the floor, and holds it in such a position that it can be easily adjusted again in the clamp, as above described.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. In a paper-hanging machine, the combination, with a paste-pan, of a roller supported to rotate in said paste-pan, and over which passes the back of the wall-paper, a scraper operating against said roller, a friction-roller geared with said paste-roller, and a drip-pan surrounding the lower half of said friction-roller, substantially as shown and described.

2. In a paper-hanging machine, the combination, with a paste-pan, and a paste-roller covered with fibrous material, and held to rotate in said paste-pan, of a friction-roller geared with said paste-roller, a drip-pan surrounding the lower half of said friction-roller, and a guide-roller under which the paper passes to said paste-roller, substantially as shown and described.

3. In a paper-hanging machine, the combination, with a paste-pan, and a paste-roller covered with fibrous material and held to rotate in said paste-pan, of a friction-roller geared with said paste-roller, a drip-pan surrounding the lower half of said friction-roller, a guide-roller under which the paper passes to said paste-roller, and a scraper pivoted on the paste-pan and acting against the fibrous covering of the paste-roller, substantially as shown and described.

4. A paper-hanging machine comprising a paste-pan, a roller covered with fibrous material held to rotate in said pan, a scraper pivoted on the paste-pan and acting against the covering of the roller, a friction-roller geared with the paste-roller, a drip-pan surrounding the lower half of the said friction-roller, and a cutting mechanism held in front of said friction-roller, substantially as herein shown and described.

5. In a paper-hanging machine, the combination, with a frame, of arms held adjustably on the front end of said frame, a stationary knife part secured to said arms, a knife part pivoted to said stationary knife part, and lugs projecting from said stationary knife part and adapted to rest on the top of the mop-board, substantially as shown and described.

6. In a paper-hanging machine, the combination, with a main frame, of a roller carrying a paper roll and mounted on said main frame, a guide-roller mounted in said main frame, a paste-roller mounted in said main frame, a

friction-roller in gear with said paste-roller, and side beams pivoted to the main frame and carrying said friction-roller, substantially as shown and described.

- 5 7. In a paper-hanging machine, the combination, with a main frame, of a roller carrying the paper roll and mounted on said main frame, a guide-roller mounted in said main frame, a paste roll mounted in said main
10 frame, a friction-roller in gear with said paste-

roller, side beams pivoted to the main frame and carrying said friction-roller, and means, substantially as described, for locking said side beams in place on the main frame, as set forth.

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Witnesses:

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