

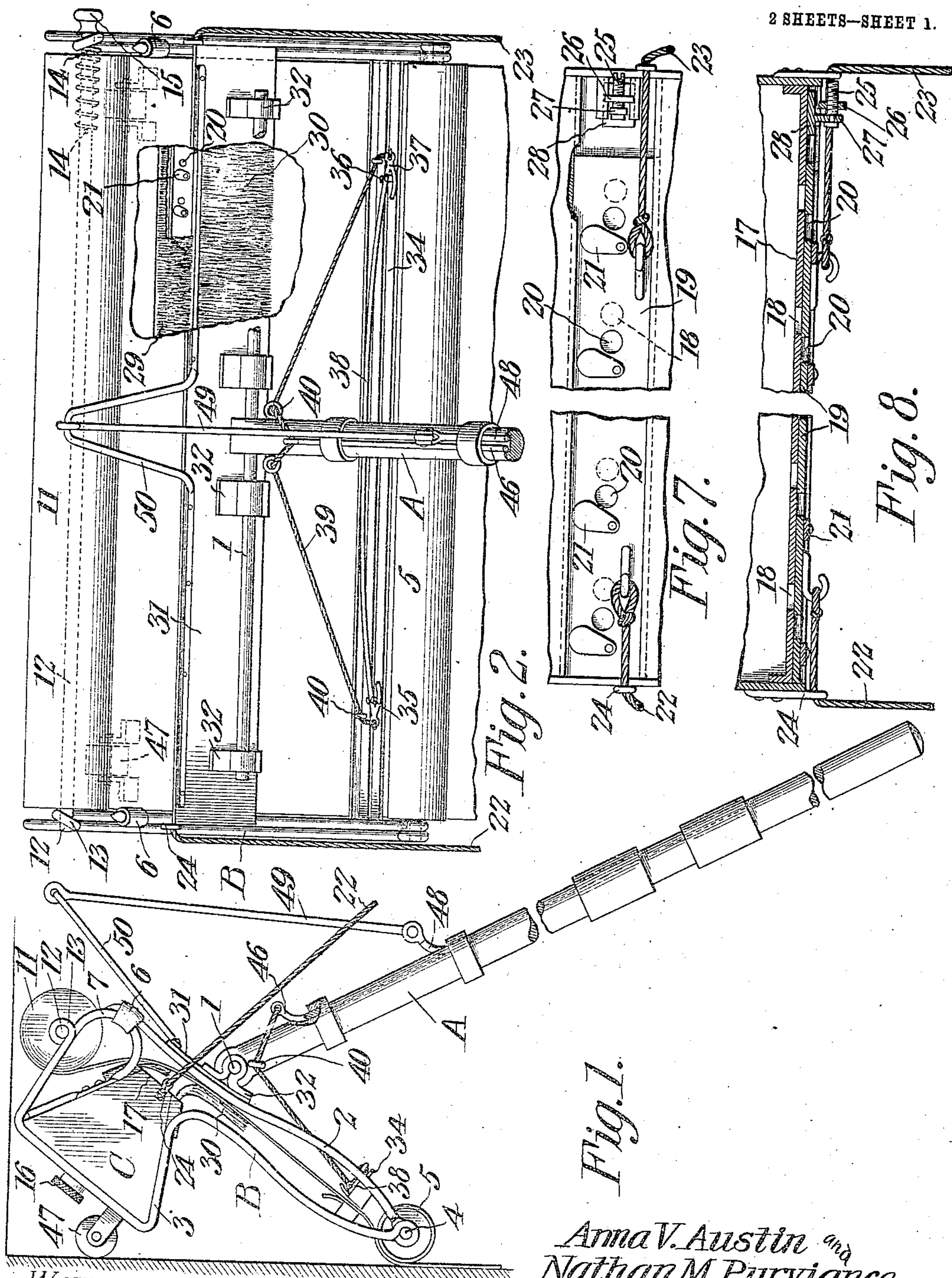
No. 855,426.

PATENTED MAY 28, 1907.

A. V. AUSTIN & N. M. PURVIANCE.
PAPER HANGING MACHINE.

APPLICATION FILED AUG. 16, 1906.

2 SHEETS—SHEET 1.



WITNESSES:

E. H. Stewart,

E. H. Stewart

Fig. 1.

Anna V. Austin and
Nathan M. Purviance
INVENTORS

By

C. A. Snow & Co.

ATTORNEYS

No. 855,426.

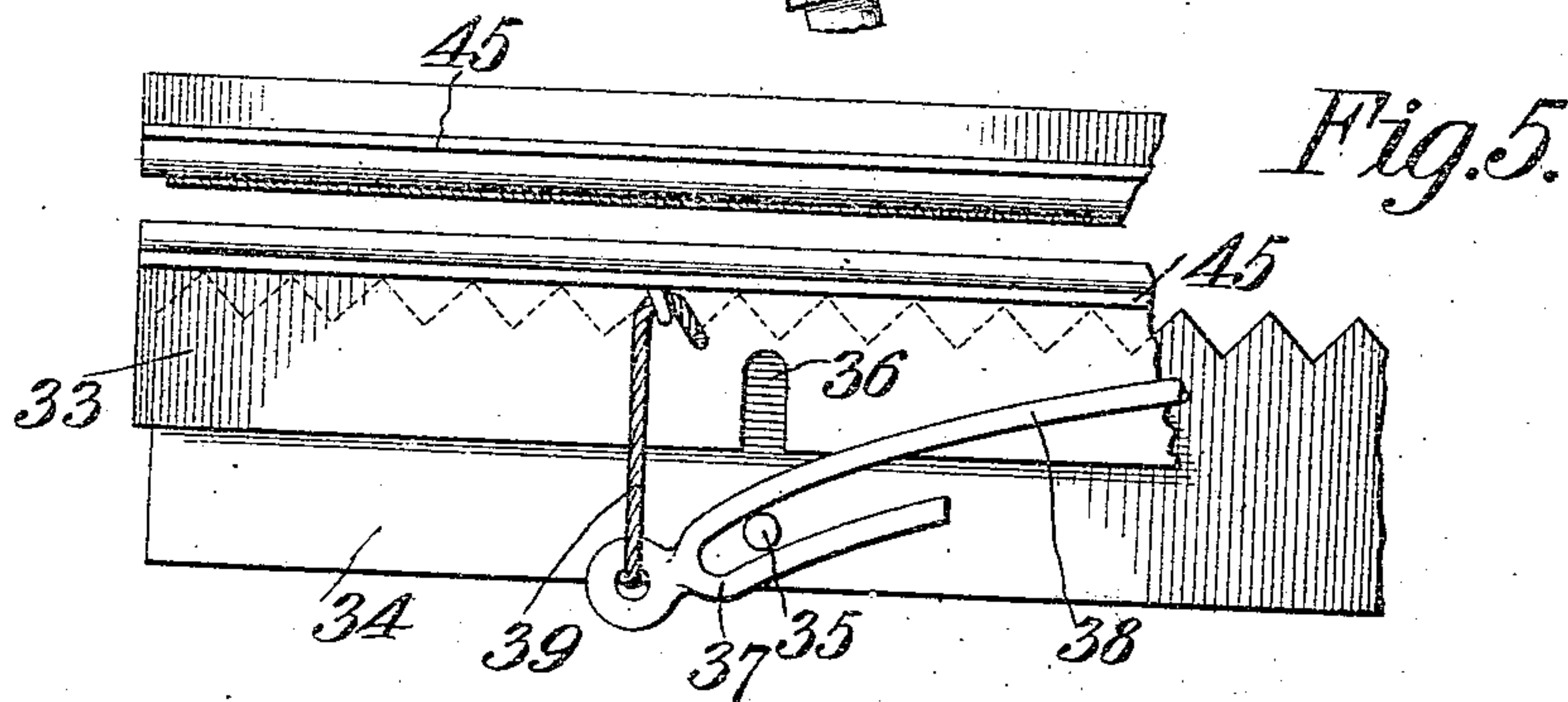
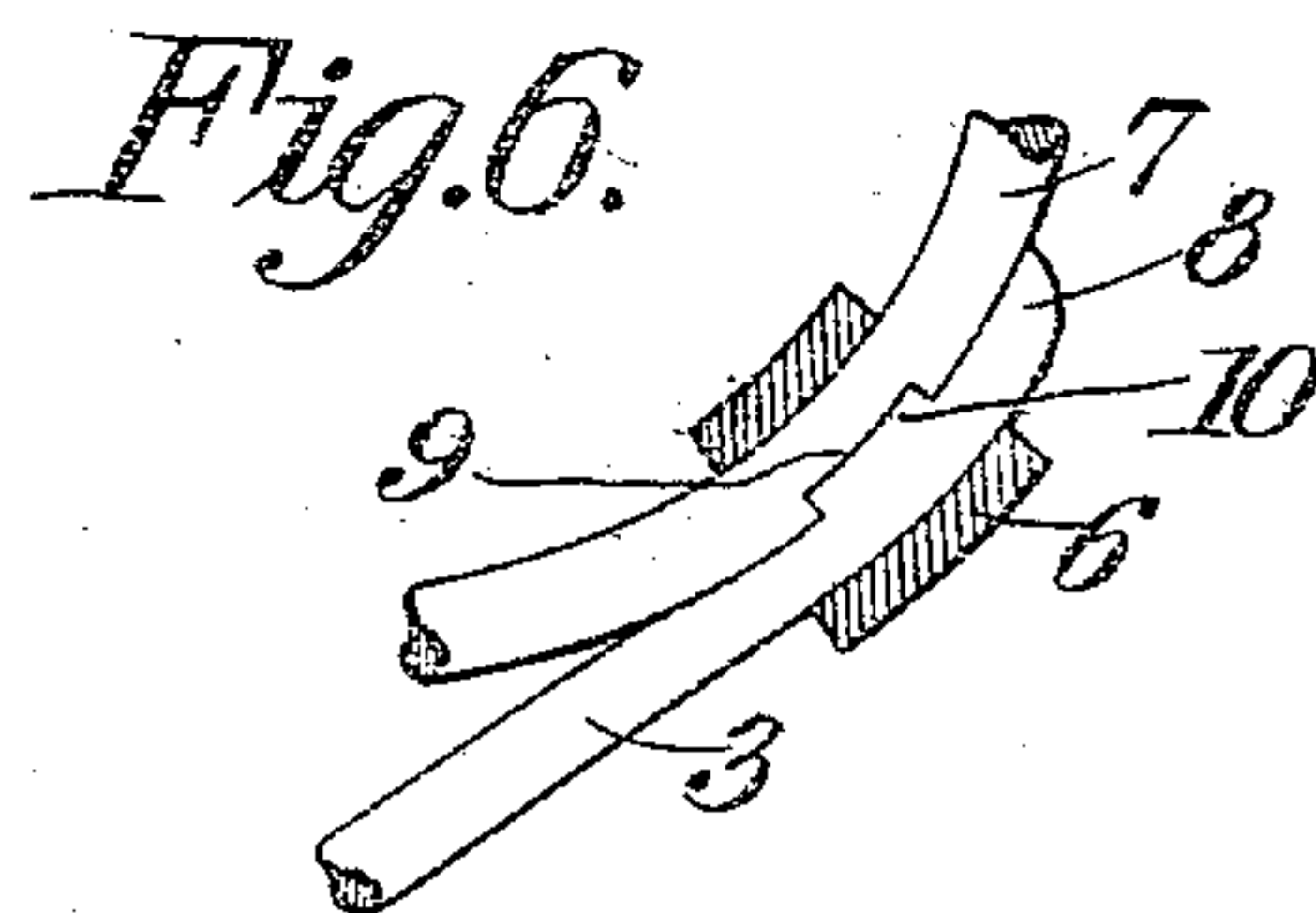
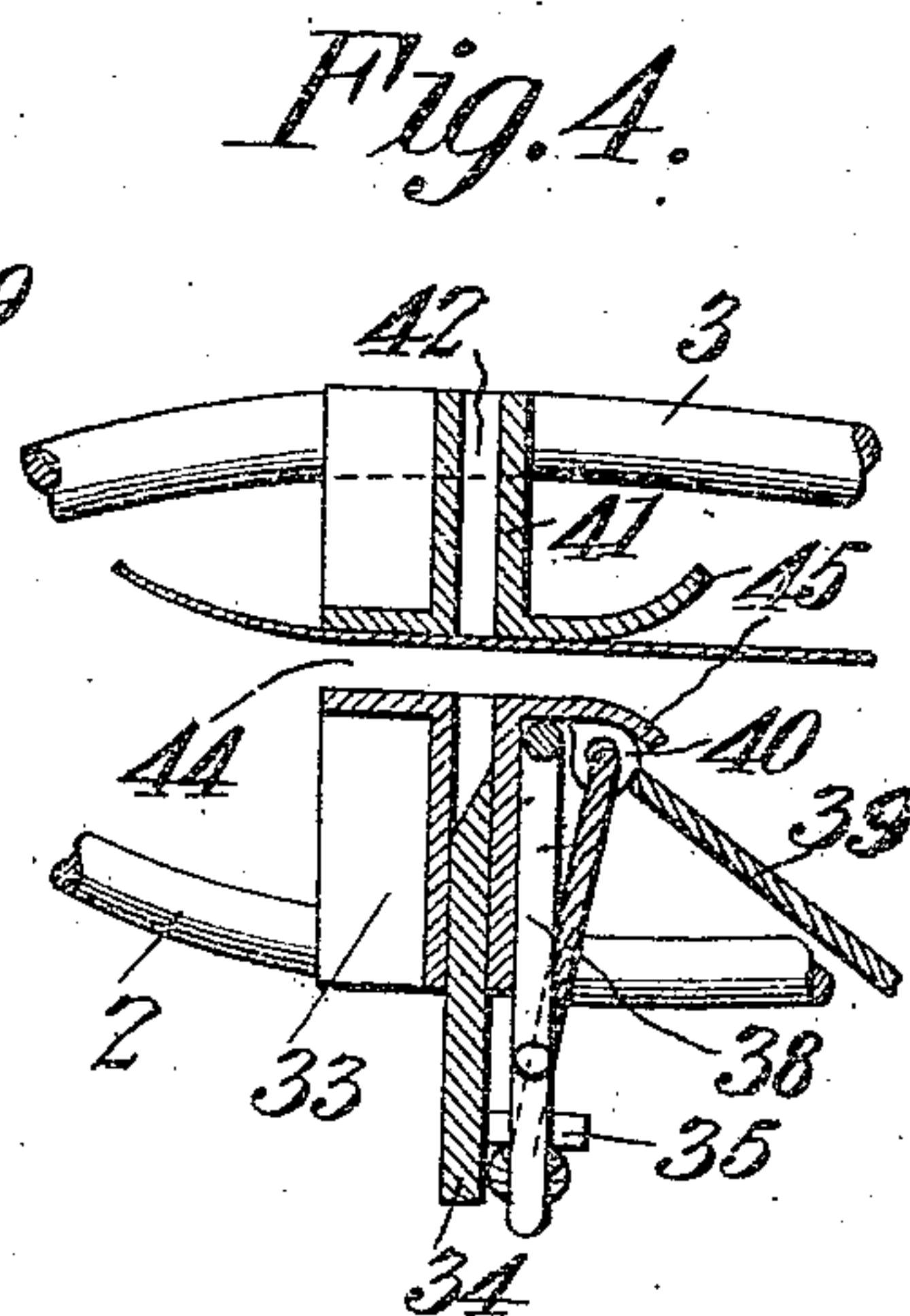
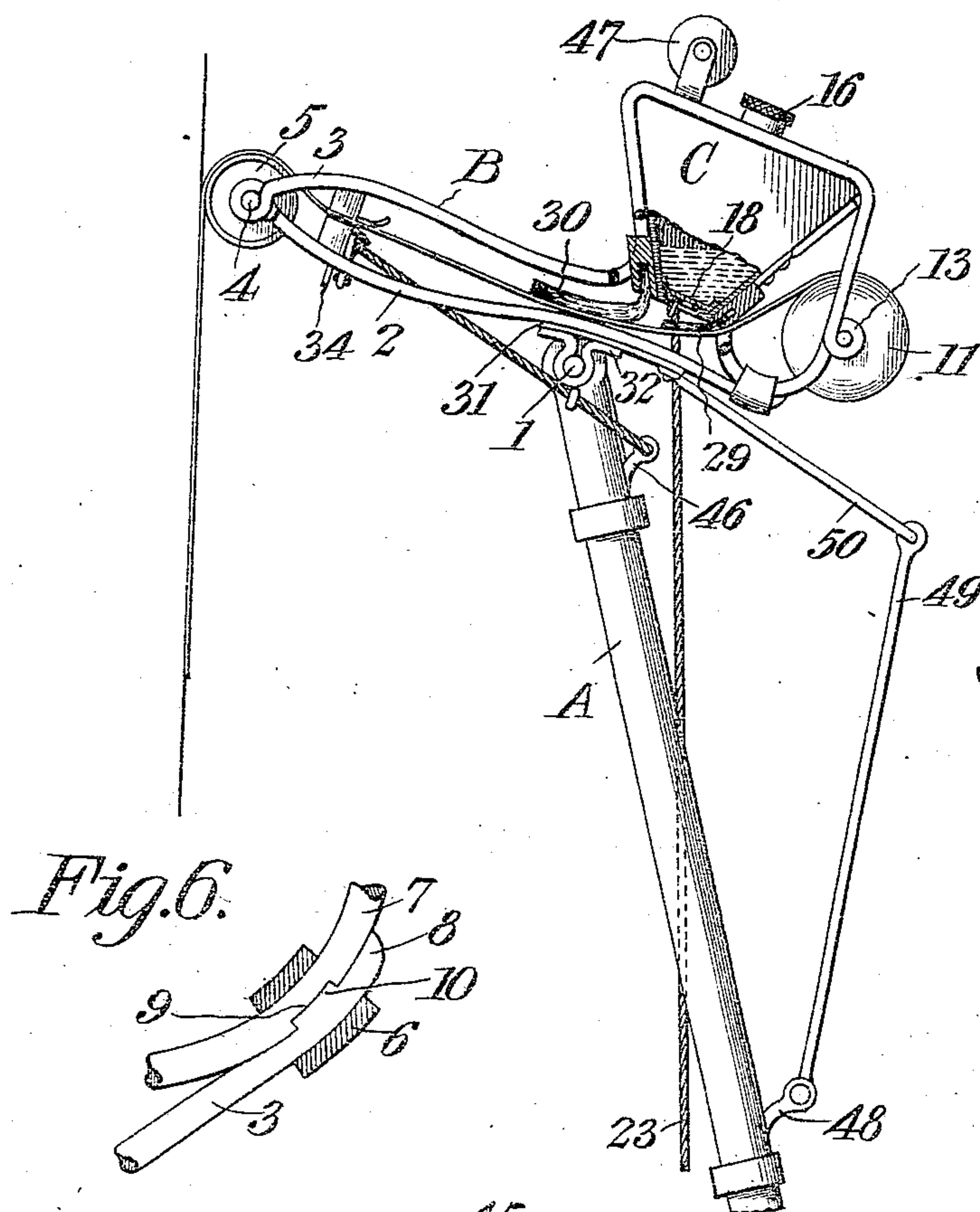
PATENTED MAY 28, 1907.

A. V. AUSTIN & N. M. PURVIANCE.

PAPER HANGING MACHINE.

APPLICATION FILED AUG. 16, 1906.

2 SHEETS--SHEET 2.



WITNESSES:

E. H. Stewart,

Thomas Stone

*Anna V. Austin and
Nathan M. Purviance*

INVENTORS

By

Chas Snow Geo

ATTORNEYS

UNITED STATES PATENT OFFICE.

ANNA V. AUSTIN AND NATHAN M. PURVIANCE, OF SPOKANE, WASHINGTON,
ASSIGNORS OF ONE-THIRD TO EMMA N. SIMS, OF SPOKANE, WASHINGTON.

PAPER-HANGING MACHINE.

No. 855,426.

Specification of Letters Patent.

Patented May 28, 1907.

Application filed August 16, 1906. Serial No. 330,909.

To all whom it may concern:

Be it known that we, ANNA V. AUSTIN and NATHAN M. PURVIANCE, citizens of the United States, residing at Spokane, in the 5 county of Spokane and State of Washington, have invented a new and useful Paper-Hanging Machine, of which the following is a specification.

This invention relates to paper hanging 10 machines.

The objects of the invention are to improve and simplify the construction of such devices; furthermore, to increase their efficiency in operation and to decrease the expense attending their manufacture and use. 15

With the foregoing and other objects in view, which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the 20 details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of invention herein disclosed can be made within the scope of the following claims without departing from the spirit of the invention or sacrificing any 25 of its advantages.

In the accompanying drawings forming part of this specification: Figure 1 is a side elevation of a paper hanging machine constructed in accordance with the invention; 30 Fig. 2 is an under plan view, partly broken away; Fig. 3 is a side elevation, partly broken away, the frame being tilted upon the handle; Fig. 4 is a detail view of the paper cutter in transverse section; Fig. 5 is a partial view 35 of the paper cutter in elevation; Fig. 6 is a detail view of the means for locking together the upper and lower members of the frame; Fig. 7 is a detail view, partly broken away, 40 showing the means for controlling the flow of paste; and Fig. 8 is a sectional view of the construction illustrated in Fig. 7.

Like reference numerals indicate corresponding parts in the different figures of the 45 drawings.

The reference letter A indicates the handle of the improved paper hanging machine which may be of any suitable length and construction. Pivotally connected with the 50 upper end of the handle A, in any suitable manner, as indicated at 1, is a frame B which carries the paste receptacle, paper rod, wall-engaging rollers, paste trailers or mops and paper cutter, as will hereafter appear.

The frame B preferably comprises a lower 55 frame member 2, and an upper frame member 3 which is pivotally connected with the lower frame member by means of a rod 4 which, in this instance, serves as the journal of a wall-engaging roller 5, the function of 60 which is to apply the paper smoothly to the wall, as will hereafter appear. The lower and upper frame members 2 and 3 preferably consist of wire frame rods, the lower ends of which are bent to form eyes adapted to en- 65 gage the journal rod 4 so that the upper frame member can be swung in a pivotal manner upon the journal rod 4 to separate it from the lower frame member 2. The means for locking the lower and upper frame 70 members together so as to prevent them from being accidentally separated, preferably consists of a sleeve 6 which is slidably mounted upon a loop 7 formed by bending the upper end of the upper frame member 3 75 as shown. The sleeve 6 is adapted to be moved downward upon the loop 7 so as to slide over the beveled upper end 8 of the lower frame member 2 and thus hold the same flat against the loop 7. 80

For the purpose of preventing the beveled end 8 from being accidentally drawn out of engagement with the sleeve 6, the loop 7 preferably is formed with a cut away portion or recess 9 and the beveled end 8 of the 85 lower frame member 2 is formed with a projection 10 which is adapted to fit into the recess 9, so that when the sleeve 6 is in position to hold the projection 10 within the recess 9, longitudinal movement of the beveled end 8 of the 90 lower frame member 2 with respect to the loop 7 is prevented and the lower and upper frame members are firmly locked together. When it is desired to separate the two frame 95 members for the purpose of threading a strip of wall paper under the paste receptacle and through the paper cutter, as will hereafter appear, it is only necessary to slide the sleeve 6 upward upon the loop 7. It will be understood that the locking mechanism, consisting 100 of the sleeve 6, preferably is duplicated at the opposite end of the frame B.

The means for holding the roll of wall paper 11 preferably consists of a paper rod 12 which is engaged at its opposite ends with 105 eyes 13 formed by coiling the material of the loop 7, as shown. The paper rod 12 is provided at one end with a coil spring 14 which

is secured to the rod by means such as the pins 14' and bears outwardly against the adjacent eye 13 so as to force the opposite end of the paper rod 12 into the eye 13 at the other side of the frame. The paper rod 12 preferably is elongated at the end thereof adjacent the spring 14 so as to form a handle portion 15 which projects beyond the adjacent eye 13. Whenever it is desired to remove the paper rod 12, the handle portion 15 is grasped and drawn outward so as to compress the spring 14 and permit the opposite end of said paper rod to be withdrawn from the eye or socket 13, after which a new roll of paper can be placed in position upon said rod.

The paste receptacle C preferably is triangular in cross section and is secured upon the upper frame member 3 by bending the wire material thereof so that it will form an approximately triangular cradle to receive the paste receptacle C, as shown. The paste is supplied to the broad upper end of the receptacle C by means of an inlet 16. The narrow bottom 17 of the paste receptacle C preferably is formed with a plurality of outlets 18 which are adapted to be closed or opened by means of a slide 19 adapted to be moved longitudinally of the bottom 17 and having a plurality of openings 20. Each of the openings 20 is provided with an individual shut-off 21 in the form of a pivotal valve which can be rotated to close or partially close some of the openings 20 without interfering with the action of the other openings. In order to provide means for controlling the flow of paste from the lower end of the handle A, we connect with one end of the slide 19 a flexible closing element 22 and with the other end of said slide a flexible opening element 23. The closing and opening elements 22 and 23 extend through suitable guides 24 and are conducted down the handle so as to be within convenient reach of the operator. It will be apparent that by drawing upon the closing element 22, the slide 19 will be moved into such position as to shut off, or partially shut off, the flow of paste, and by drawing upon the opening element 23 and at the same time releasing the closing element 22, the slide 19 will be moved into position to accelerate the flow of the paste upon the paper.

In some cases, when the paste is thin in consistency or semi-liquid, it becomes desirable to provide means for limiting the opening movement of the slide 19, for the reason that if, by an inadvertently strong pull upon the opening element 23, the slide 19 should be moved into such position as entirely to open the outlets of the paste receptacle, too large a quantity of semi-liquid paste would be supplied to the paper, with the result that some of it might escape from the machine. The means which is provided for limiting the opening movement of the slide

19, preferably consists of an adjusting screw 25 which extends through a stationary threaded ear 26 and has a swivel connection with a lug 27 upon a slide block 28 which is mounted in the path of movement of the slide 19. By rotating the adjusting screw 25 so as to move the slide block 28 toward or from the slide 19, the movement of said slide 19 can be readily limited so as to prevent a strong pull upon the opening element 23 from completely opening the paste receptacle and thus permitting the escape of paste, it being understood that the adjusting screw 25 is regulated according to the consistency or character of the paste which is contained in the receptacle C. As before explained, the shut-off devices 21 can be operated to close some of the paste openings without closing the others. By means of the devices described, the flow of paste from the receptacle C can be regulated with the greatest degree of nicety.

The means for applying the paste to the wall paper after it is discharged from the paste receptacle, preferably consists of what we shall term a short paste mop or trailer 29, which is mounted in advance of the paste outlets 18 in the paste receptacle, and a long paste mop or trailer 30, which is mounted in rear of the paste outlets, as shown. The use of the mops or trailers 29 and 30, which consist of long, flexible material such, for example, as cord or hemp, which is adapted to trail for some distance upon the rear side of the wall paper, constitutes an important advantage over the use of brushes, which do not properly apply the paste to the paper, for the reason that in ordinary practice they are found either to supply too great or too little an amount of paste. The mops or trailers, on the other hand, become saturated with the paste, and the long trailer 30, which is mounted in rear of the paste receptacle, trails along the rear surface of the paper for a considerable distance so as not only to remove or take up any surplus amount of paste but also to smear the paste thoroughly on all portions of the paper and thus adapt it to be readily applied to a wall or ceiling. The lower frame member 2 of the frame B preferably is provided with a transversely extending bearing plate 31 which is located beneath the trailers 29 and 30 so as to afford a support for the wall paper beneath said trailers. The bearing plate 31 preferably is provided with bearing brackets 32 which serve to receive the rod or pivot point 1.

The means for cutting the wall paper when a suitable length has been applied to a wall, preferably comprises a cutter bar guide 33, which is mounted in any suitable manner upon the lower frame member 2. Mounted for reciprocatory movement in the cutter bar guide 33 is a toothed cutter bar 34 which is provided with studs 35 adapted to engage

guide slots 36 in the guide 33. The studs 35 are engaged by the looped ends 37 of a retracting bow spring 38 which serves normally to hold the cutter bar in its lowered or retracted position. The upward or forward cutting movement of the cutter bar 34 preferably is effected by means of flexible elements 39 which extend through suitable eyes 40 and are conducted down the handle A so as to be in position to be pulled by the operator. Mounted upon the upper frame member 3 is a cutter bar receiving member 41, which is formed with a slot 42 to receive the cutter bar 34 during its upward movement. The space 44 between the cutter bar guide 33 and the cutter bar receiving member 41 constitutes a paper slot through which the wall paper is fed. The guide 33 and the receiving member 41 preferably are both formed with laterally extending flanges 45 which present broad smooth surfaces for guiding the paper. The use of the toothed cutter bar 34 constitutes a valuable improvement of the present invention, in that the teeth of the cutter bar readily enter the paper and produce a clean cut without forcing any part of the paper up in the slot 42, as would sometimes occur if a cutter having a straight cutting edge were employed, especially, after the straight cutting edge had become slightly dulled. The preferred means for enabling the operator to manipulate the flexible elements 39, preferably consists of a slide rod 46, which is mounted in a suitable longitudinal groove in the handle A and is connected at its upper end with said flexible elements 39, as shown.

In order to hold the frame B in proper position with respect to the wall which is being papered, a second wall-engaging roller 47 is suitably journaled upon the paste receptacle C, as shown. The wall-engaging roller 47 coöperates with the roller 5 so as to maintain the frame B in proper position.

The disadvantage of wall papering machines as generally constructed is that difficulty is experienced in applying the wall paper to the ceiling of a room after the machine has been adjusted for papering the walls. The object in view in the present invention is in pivotally mounting the frame B upon the handle A is to permit said frame to be easily and quickly shifted upon the handle so as to adapt the device to be used for papering the ceiling of a room as well as the walls. The means controlled by the operator for swinging the frame B pivotally upon the handle A, preferably consists of a slide rod 48, which is mounted in a suitable longitudinal groove in the handle A and is connected at its upper end by means of a link 49 with an arm 50 upon the frame B. By manipulating the slide rod 48, the frame B can be readily rocked upon the handle so as to adapt the device to be used for papering either the walls or ceiling. In either case, both the

wall-engaging rollers 5 and 47 will contact with the wall or ceiling, and thus hold the frame in proper position.

As previously explained, the upper and lower frame members of the frame B can be readily unlocked and separated from each other when it is desired to thread the wall paper through the frame.

The improved paper hanging machine of this invention is strong, simple, durable and inexpensive in construction as well as thoroughly efficient in operation.

The different rollers of the improved machine can be provided with any suitable form of ball bearing, if desired, in order to make them run more smoothly.

What is claimed is:

1. A paper hanging machine having a supporting handle, a cutter bar guide, a toothed cutter bar slidable in said guide, automatic means for retracting said cutter bar, means controlled by the operator at one end of the handle for operating said cutter bar, and a cutter bar receiving member having a slot provided with a stationary cutter bar adapted to coöperate with said sliding cutter bar.
2. A paper hanging machine having a frame comprising upper and lower frame members pivotally connected with each other, a slidable cutter bar carried by one of said frame members, and a cutter bar receiving member carried by the other of said frame members.
3. A paper hanging machine having a handle, a frame mounted upon said handle and consisting of upper and lower frame members pivotally connected with each other, one of said frame members having a loop formed with a recess and the other of said frame members having a beveled end formed with a projection adapted to engage said recess, and a sleeve slidably mounted upon said loop of one member and adapted to engage the beveled end of the other member for holding said projection within said recess and thus locking the upper and lower members of the frame together.
4. A paper hanging machine having a handle, a frame pivotally mounted upon said handle and consisting of upper and lower frame members pivotally connected with each other, a wall-engaging roller mounted in line with the pivot point of the upper and lower members of said frame, a reciprocatory cutter bar carried by the lower frame member, a cutter bar receiving member carried by the upper frame member, flexible elements connected with said reciprocatory cutter bar, a slide rod mounted upon the handle and connected with said flexible elements, a paste receptacle mounted upon the upper member of said frame, means controlled by the operator at the lower end of the handle for regulating the flow of paste from said receptacle, a short paste trailer mounted in advance of said re-

ceptacle, a long paste trailer mounted in rear of said receptacle, a paper rod mounted upon said upper frame member, and means for locking said upper and lower frame members

5 together.

5. A paper hanging machine comprising a handle, a frame pivotally mounted thereon and consisting of upper and lower frame members pivotally connected, a bearing plate carried by one of said members, paste distributing mechanism carried by the other member and adjacent said plate, means for locking the frame members together, a paper cutter carried by the frame, means for actu-

15 ating said cutter, and a roller mounted in the frame for supporting paper in contact with a wall.

6. A paper hanging machine comprising a handle, a frame pivotally connected thereto and consisting of upper and lower members pivotally connected, means for securing said members in fixed relation, means for rocking the frame upon the handle, a bearing plate carried by one of the members, paste apply-

25 ing mechanism carried by the other member and adjacent the bearing plate, means for supporting a paper roll upon one of the members, a paper supporting roller carried by the frame and adapted to travel on a wall, and a

30 paper cutter carried by the frame adjacent said roller.

7. A paper hanging machine comprising a handle, a frame pivotally mounted thereon and consisting of upper and lower members pivotally connected, means for securing said

35 members together, paste distributing mechanism carried by one of the members, a paper supporting roller carried by the frame, a cutter bar guide upon one of the members and between the paste distributing mechanism and the roller, a cutter bar receiving

40 member upon the other frame member and

registering with the guide, a cutter bar mounted to reciprocate within the guide, and means for projecting said bar into the receiv-

ing member, said receiving member and guide being spaced apart to constitute a paper guide. 45

8. A paper hanging machine comprising a frame consisting of upper and lower members pivoted together, means for detachably se-

50 curing said members together, paste distributing mechanism carried by the frame, a paper supporting and applying roller carried by the frame, a cutter bar receiving member upon one of the frame members, a cutter bar guide upon the other frame member and reg-

60 istering with the receiving member, said guide and receiving members being spaced apart to constitute a paper guide, curved guide flanges extending from the receiving member and cutter bar guide, a cutter bar mounted within the guide, and means for projecting said bar into the receiving member to cut the paper within the paper guide. 65

9. A paper hanging machine comprising a frame, paste applying mechanism carried thereby, a paper supporting and applying device carried by the frame, a paper guide interposed between the paste applying mechanism and the paper supporting device, a

70 cutter bar mounted within one portion of said paper guide, and means for projecting the cutter bar into the opposite portion of the paper guide. 75

In testimony that we claim the foregoing as our own, we have hereto affixed our signatures in the presence of two witnesses.

ANNA V. AUSTIN.
NATHAN M. PURVIANCE.

Witnesses:

F. J. RIELLY,
A. D. RIELLY.