

No. 793,868.

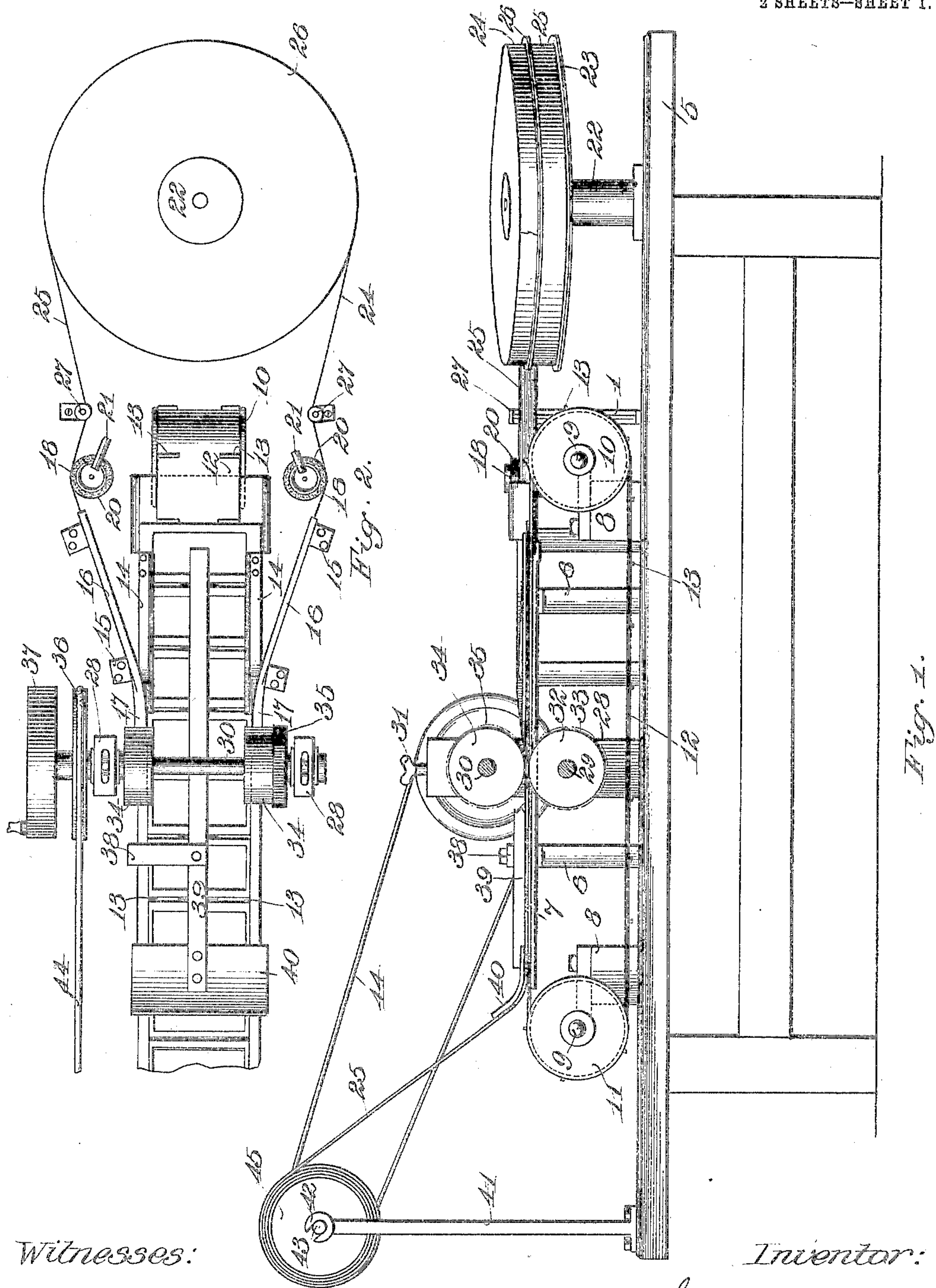
PATENTED JULY 4, 1905.

L. A. AGNEW.

MACHINE FOR MOUNTING ADDRESS FORMS IN STRIPS.

APPLICATION FILED AUG. 27, 1902.

2 SHEETS—SHEET 1.



Witnesses:

Wm. H. Varnum.

N. G. Kimball

Inventor:

Lee A. Agnew

Henry J. Miller atty

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2 SHEETS—SHEET 2.

Fig. 3.

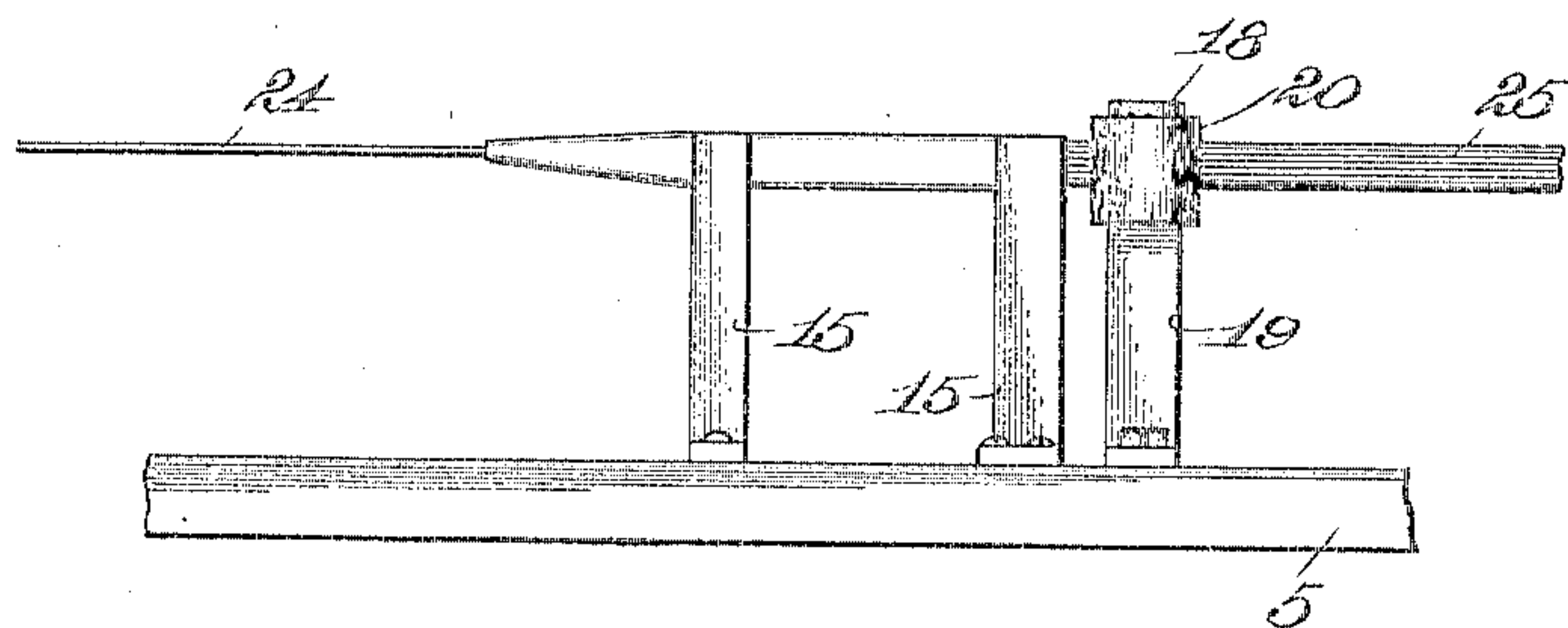
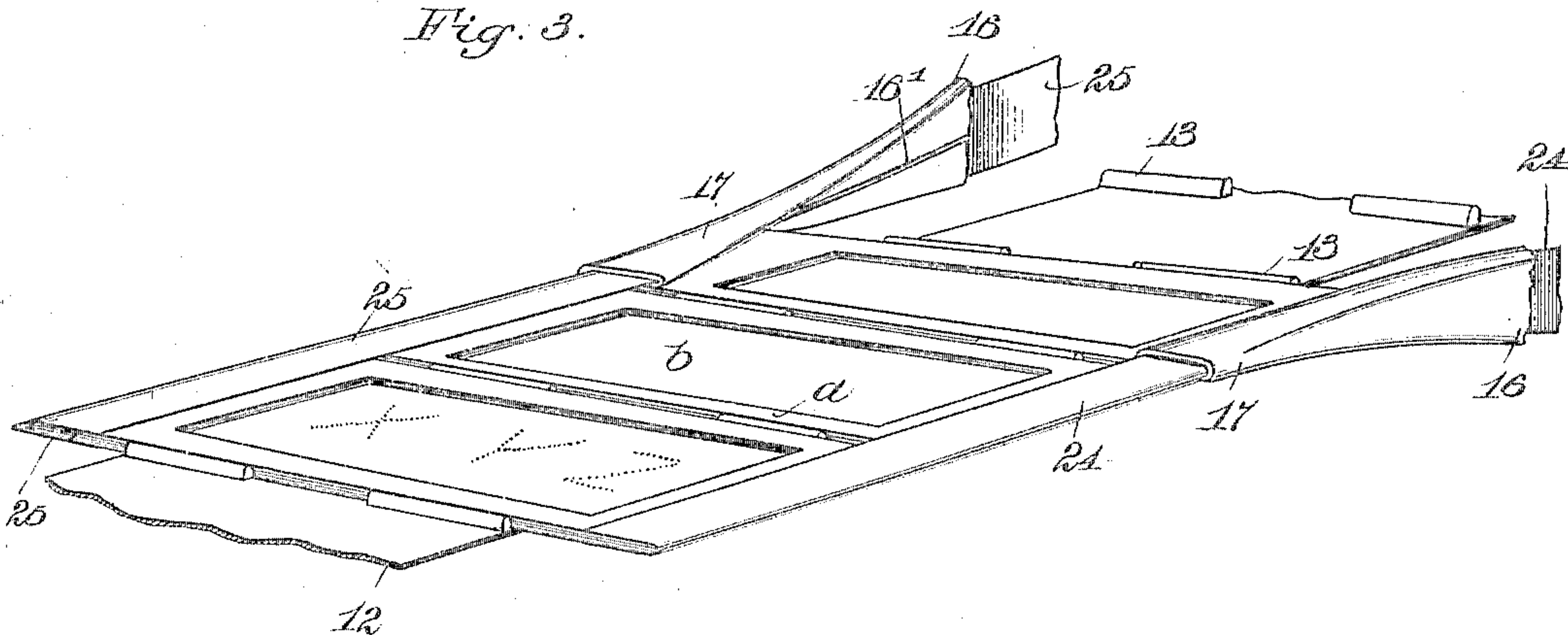


Fig. 4.

Witnesses:

Thos. H. Varnum.

N. G. Kimball.

Inventor:

Lee A. Agnew

By

Henry J. Miller
att'y.

UNITED STATES PATENT OFFICE.

LEE A. AGNEW, OF NEW YORK, N. Y., ASSIGNOR TO GEORGE L. RICHARDS,
OF BOSTON, MASSACHUSETTS.

MACHINE FOR MOUNTING ADDRESS-FORMS IN STRIPS.

SPECIFICATION forming part of Letters Patent No. 793,868, dated July 4, 1905.

Application filed August 27, 1902. Serial No. 121,196.

To all whom it may concern:

Be it known that I, LEE A. AGNEW, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Machines for Mounting Address-Forms in Strips, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to improvements in machines for mounting address-forms in strips or bands.

One object of the invention is to so construct a machine of this nature that adhesive tape may be moistened, turned to form a fold to receive the edges of the address-forms, and subjected to pressure to fix the tape to said forms.

Other objects of the invention will appear from the description of the machine and of its operation.

The invention consists in such novel features of construction and combination of parts as shall hereinafter be more fully described, and pointed out in the claims.

Figure 1 represents a front elevation of the improved machine for securing address-forms together, portions of the same being broken away. Fig. 2 represents a plan view of portions of the machine. Fig. 3 represents an enlarged perspective view of parts of the form-carrying belt, the forms thereon, and the tape-folding guides, showing the binding-tapes folded thereby. Fig. 4 represents an elevation of one of the tape-guides and of one of the tape-moistening devices, a tape being shown in relation thereto.

Similar characters of reference designate corresponding parts throughout.

40 In the drawings, 5 represents any usual form of table or base suitably supported to sustain the machine at a height convenient for operation. On the table 5 are mounted standards 6 6, on which the plate 7 is supported, and adjacent to the ends of this plate are secured to the table 5 the brackets 8 8, provided with studs 9 9, carrying the respective belt-pulleys 10 and 11, on which is mounted the belt 12, having the spacing projections

or lips 13 13 extending from the edges of the belt and preferably omitted along the center of the belt. On the plate 7, at the edge portions thereof and at the end corresponding to the location of the belt-pulley 10, are secured the address-form guides 14 14, having grooves to receive and guide the forms as they are fed forward by the belt 12, and at the side portions of this end of the machine are supported on the standards 15 15, secured to the table 5, the tape-guides, which consist of flat vertically-disposed portions 16 16, extending toward the belt 12, and folded portions 17 17, extending practically parallel to the path of said belt and separated from each other sufficiently to receive between them the ends of the address-forms. Also mounted at the feeding end of the machine are the tape-moisteners, comprising cups 18 18, rotatably mounted on the standards 19 19 and having perforated walls which are embraced by fibrous envelops 20 20, preferably of felt, means, as the spouts 21 21, being provided to convey water to said cups. Secured to this feeding end of the table 5 is the shaft 22, carrying the disk 23, and on that portion of the shaft above this disk are independently rotatable to rotate in opposite directions the coiled tapes 24 and 25, separated by the disks 26, these tapes being preferably formed of comparatively narrow strips of fabric having a coating of dry mucilaginous material on one side, said material being adapted to become adhesive under subjection to moisture. Between the shaft 22 and the moisteners are the tape-guides 27 27, positioned to direct the tapes 24 and 25 to the moisteners, so that the adhesive surfaces of the tapes may bear on the fibrous coverings 20 20 of said moisteners.

About midway of the machine are the supports 28 28, in which are journaled the shafts 29 and 30, the bearings of the shaft 30 being subject to adjustment under pressure of screws, as 31, Fig. 1. On the shaft 29 are mounted the rolls 32 32 and a gear 33, these rolls working slightly above the plate 7, while on the shaft 30 are mounted the rolls 34 34, the gear 35, meshing with the gear 33,

and the belt-pulley 36 and the crank-wheel 37, the rolls 32 and 34 being adapted to exert pressure on an address-form passing therebetween. Above the belt 12 is supported by the bracket 38, secured to a fixed part of the machine, the longitudinal strip 39, adapted to bear slightly on the central portions of the address-form frames and having the upwardly-curved guide-plate 40. At the finish end of the machine are mounted a pair of arms, as 41, having open slotted bearings, as 42, in which is rotatably mounted a shaft 43, carrying a belt-pulley, to which motion is imparted by the belt 44 working thereover and over the pulley 36 of the shaft 30, and also the roll 45, on which the forms and their securing-tapes are wound. The address-forms, adapted to be secured together by this machine, comprises a rectangular frame *a*, preferably of flexible material, such as cardboard, and having attached thereto a sheet *b* of thin material having groups of perforations arranged to form letters, symbols, or words.

Prior to the operation of the machine the tapes 24 and 25 are passed through the tape-guides and attached to the roll 45, access to the tapes in said guides being effected through the slot 16'. (Shown in Fig. 3 of the drawings.) The tapes 24 and 25 enter the portions 16 of the guides in the flat position shown in the drawings and following the curves and folds of the guides emerge therefrom as folded binding-strips, into which the edges of the address-form frames *a a* are entered as these frames are fed along by the belt 12, the forms being placed thereon by hand or in any well-known manner and positioned by the projections 13 13. As the adhesive sides of the tapes move over the moistening devices the adhesive is moistened sufficiently to adhere to the frames *a a* when applied thereto under pressure; but this material is not sufficiently adhesive to adhere to the tape-guides in passing thereto. The frames being now fed along, with the tapes 24 and 25 lapped over their edges, pass between the rolls 32 32 and 34 34, and pressure is exerted to smooth and affix the tapes, while the central portions of the frames are prevented from buckling or lifting by the longitudinal strip 39. The forms and their securing-tapes now move upward under the plate 40 and are wound on the roll 45.

While the wheel 37 is designed to be operated by hand to drive the machine, it is obvious that power driving means may be used, if desired.

The term "address-form" is herein used to designate the particular kind of printing-form to the securing together of which this machine is especially adapted; but I do not desire to limit myself to this or any particular use or construction.

It will be seen that the tapes 24 and 25 form

flexible binders for the address-forms, and those portions of the tapes between the frames *a a* are in the nature of hinge connections on which the frames may turn when deflected from a straight course, as in winding on the roll 45.

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

1. In a machine for mounting address-forms in strips, the combination with a feed-belt mounted on rolls and having spacing devices thereon, and means for driving said belt, of guides located at the sides of the belt and adapted to fold adhesive tapes, fed there-through, over the edges of the forms, means for supplying moisture to the adhesive surfaces of said tapes before the tapes are passed through the guides.

2. In a machine for mounting address-forms in strips, the combination with a feed-belt mounted for movement and having spacing devices thereon, and guides located at the sides of the belt for positioning the forms laterally, of guides located at the sides of the belt and adapted to fold adhesive tapes, fed there-through, over the edges of the forms, and means for moving said tapes and their address-forms along.

3. In a machine for mounting address-forms in strips, the combination with a belt mounted for movement and having raised spacing devices thereon, of a guide-strip positioned above said spacing devices and having at one end an upwardly-curving guide-plate, and means for applying tapes over the ends of printing-forms carried on said belt, as and for the purpose described.

4. The combination with the pulleys 10 and 11, the belt 12 mounted to move thereon and having the spacing projections 13 13, and means for supporting the upper reach of said belt between the pulleys, of driving means for frictionally engaging the forms on said belt to move the same forward.

5. The combination with the pulleys 10 and 11, the belt 12 mounted thereon and having the projections 13 13, means for supporting the upper reach of said belt, and the guide-strip 39 mounted above said belt and having the curved plate 40, of the form-guides 14 14 located at the sides of the belt, the tape-guides having the members 16 16 and the folding members 17 17, pairs of rolls located respectively above and below the belt and adapted to bear on the edge portions of the forms, and means for rotating the rolls.

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

LEE A. AGNEW.

Witnesses:

ERNEST S. JAROS,

CHAS. H. BELKNAP.