

No. 859,571.

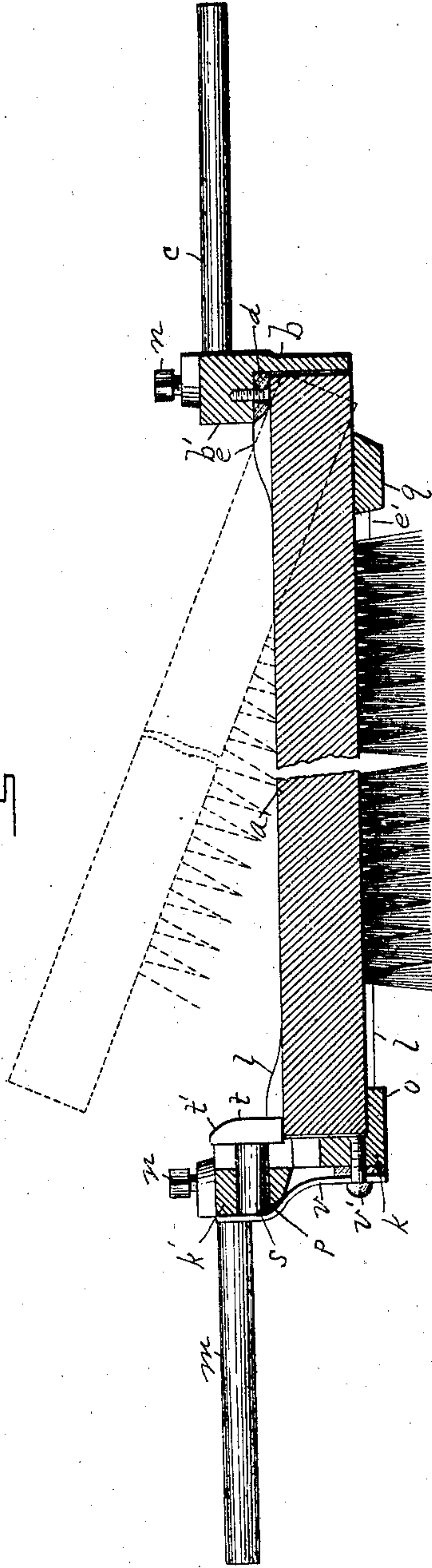
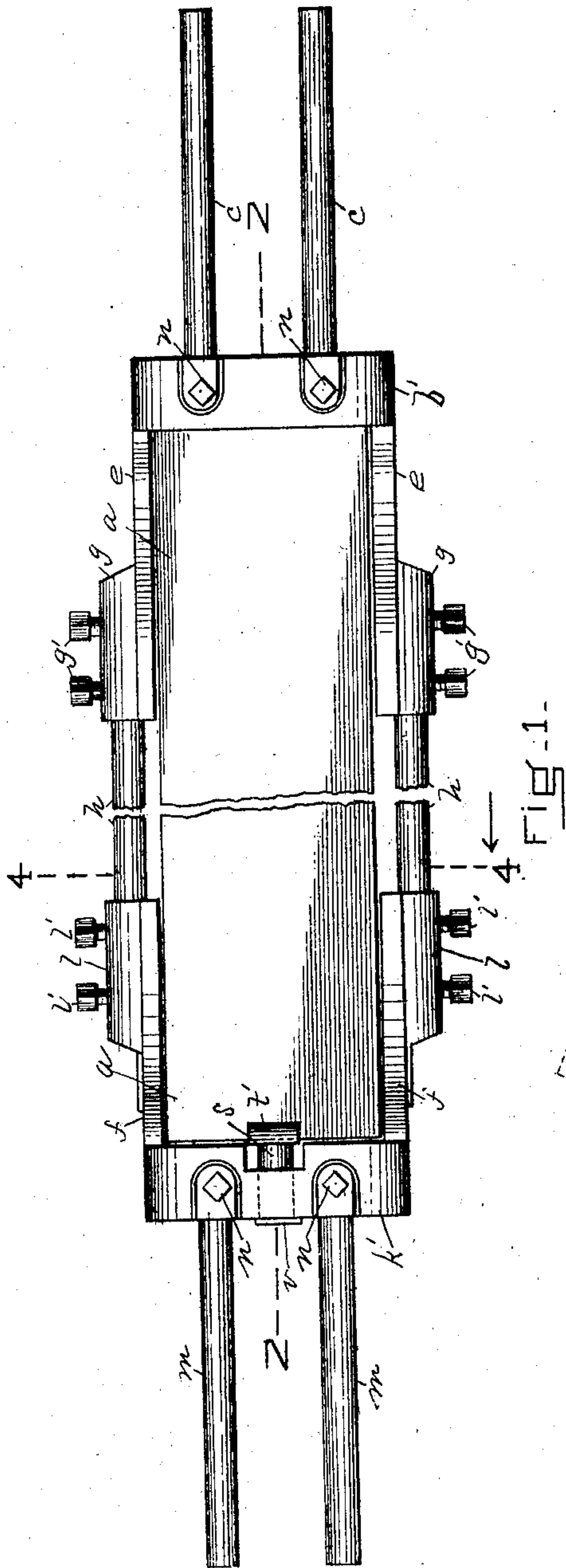
PATENTED JULY 9, 1907.

J. B. MORROW.

BRUSH HOLDER FOR PAPER COATING MACHINES.

APPLICATION FILED DEC. 21, 1906.

2 SHEETS—SHEET 1.



WITNESSES =

A. F. Hood
E. H. Strauss

INVENTOR

John B. Morrow

By his Atty.

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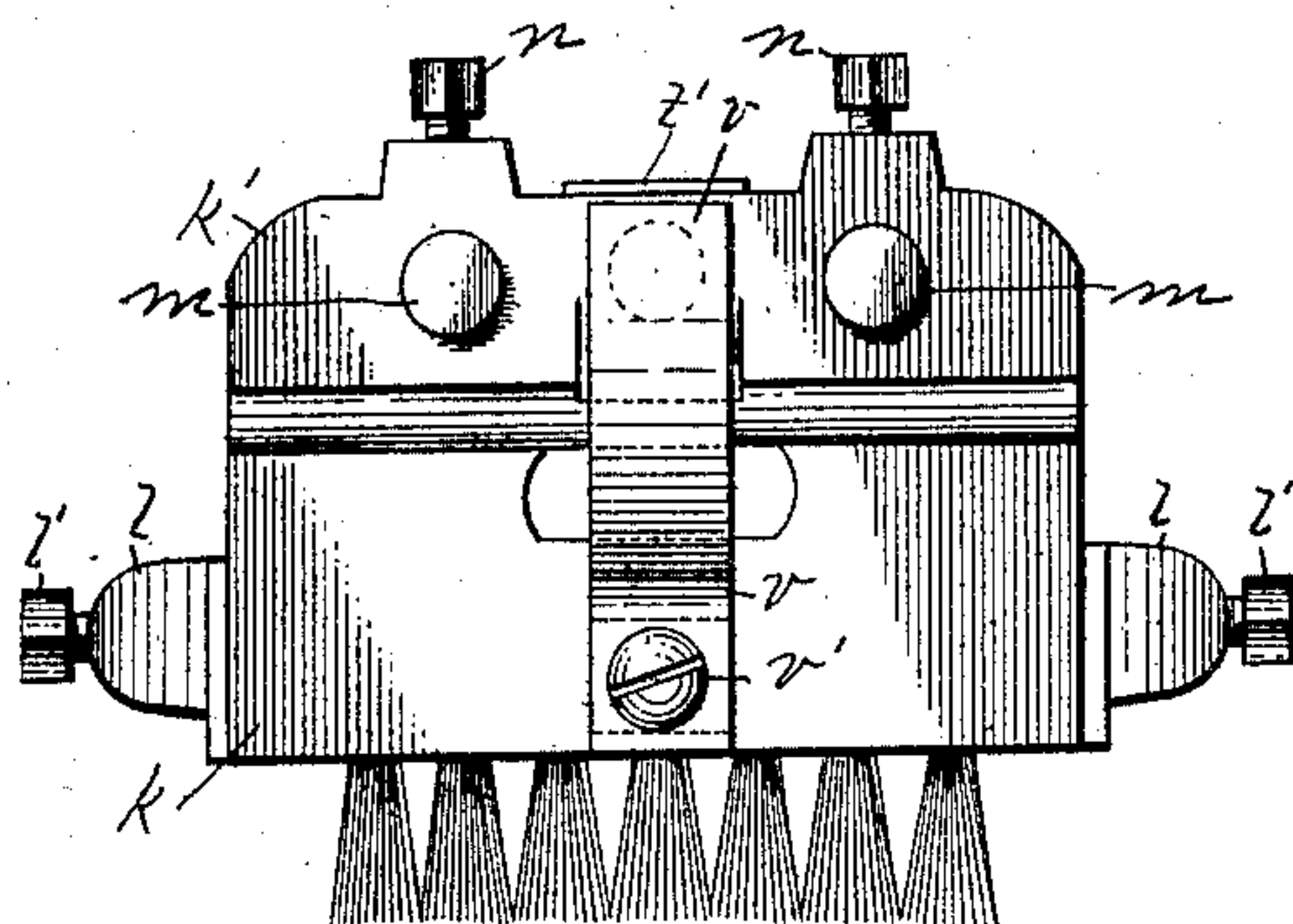


Fig. 3.

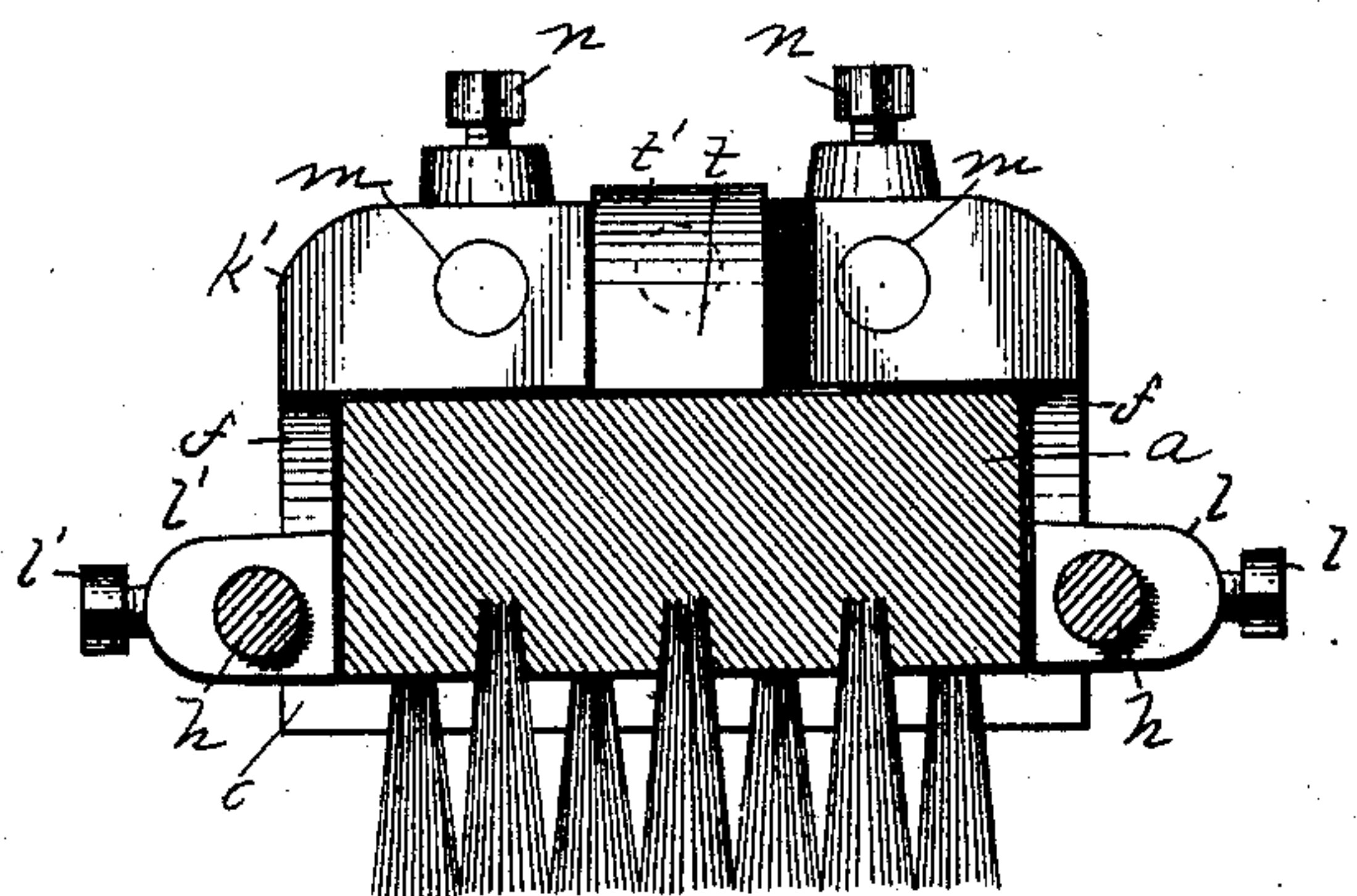


Fig. 4.

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UNITED STATES PATENT OFFICE.

JOHN B. MORROW, OF PEPPERELL, MASSACHUSETTS.

BRUSH-HOLDER FOR PAPER-COATING MACHINES.

No. 859,571.

Specification of Letters Patent.

Patented July 9, 1907.

Application filed December 21, 1906. Serial No. 348,869.

To all whom it may concern:

Be it known that I, JOHN B. MORROW, a citizen of the United States, residing in Pepperell, in the county of Middlesex and State of Massachusetts, have invented
5 a new and useful Improvement in Brush-Holders for Paper-Coating Machines, of which the following is a specification.

The brush-holder which is the subject of this invention is for holding the flat brush which spreads the
10 color, in distinction from rotary brushes which apply the color and are usually round.

Much time is now lost in machines of the character referred to in removing the flat brushes, as for cleaning
15 purposes because the said brushes have been rigidly attached to the underside of the piece on which they are supported. These brushes vibrate horizontally and longitudinally several times a second, and it has been necessary to stop the machine in order to remove them and return or replace them.

20 This invention has for its object to provide a brush-holder which will allow the brush to be removed and applied or replaced without stopping or slowing down the machine. I accomplish this desirable object by making the support for the brush in the form of a frame
25 or holder which is open in its center for a space large enough to permit the bristle portion of the brush employed to pass through and by providing suitable means, such as a spring lock, for securing the brush to the frame. When it is desired to remove the brush, it
30 is only necessary to release the brush from the lock and lift it out of the frame or holder. This may be done very easily and without stopping the machine.

The nature of the invention is fully described below, and illustrated in the accompanying drawings, in
35 which:—

Figure 1 is a plan view of my improved brush-holder with the brush in position therein, the central portion being broken out and the brush represented being supposed to be about forty inches or more long and about
40 four and one-half inches wide. Fig. 2 is a section taken on line 2—2, Fig. 1, dotted lines showing the brush being removed. Fig. 3 is an end elevation looking toward the right. Fig. 4 is a section taken on line 4—4, Fig. 1 looking toward the left.

45 Similar letters of reference indicate corresponding parts.

a represents a flat brush for spreading the color, constructed substantially as usual.

b is one of the metallic ends of the holder provided
50 with the ordinary outwardly extending rods *c* which are connected with the power whereby the brush is vibrated longitudinally. This end-wall *b* has its upper portion thickened at *b'* and provided on its under surface with a washer or elastic cushion *d*. The opposite
55 ends of the lower portion of the end-wall *b* are provided

with the inwardly projecting parallel extensions *e*, said extensions being formed on their outer surfaces with horizontal parallel sockets *g* in which the right ends of the usual connecting rods *h* are held by said screws *g'*.

k represents the opposite end-wall, whose lower por- 60 tion is provided with inwardly projecting extensions *f* similar to the extensions *e* and provided with horizontal parallel sockets *l* exactly like the sockets *g*, wherein the left ends of the rods *h* are secured by set-screws *l'*. The upper portion of the end-wall *k* is thickened at *k'* 65 outwardly, that is, toward the left, instead of inwardly toward the right as with the end-wall *b*. The portion *k'* sustains the ordinary outwardly extending rods *m* exactly like the rods *c*, connecting with the power, all the rods *m* and *c* being held rigidly in position by suit- 70 able set-screws *n*. The lower edge of the end-wall *k* is provided with an inwardly extending horizontal shelf *o*, and a cross-bar *q* (Fig. 2) extends from one of the extensions *e* to the other, said extensions being provided on their inner sides with horizontal flanges *e'*—the said 75 shelf *o*, cross-bar *q* and flanges *e'* being on the same plane and supporting the back of the brush *a*.

The end walls *b* and *k* with their inwardly projecting extensions *e* and *f*, the side connecting rods *h*, the horizontal shelf *o* and cross bar *q* together form the frame or 80 holder for the brush *a*, the bristles of the said brush projecting through the opening in the center of the frame or holder. The portion *k'* of the end-wall *k* is horizontally bored at *p* to receive a bolt *s* provided at its inner end with a latch *t* set vertically and with its beveled or 85 rounded edge *t'* extending upward. This latch is held normally with its flat lower end over the left edge of the brush *a* by a spring *v* whose lower end is secured at *v'* to the end-wall *k*, and whose upper end is bent outward and upward against the outer end of the bolt *s*. The 90 brush is therefore held in position in the holder, resting on the portions *o*, *q* and *e'*, and overlapped at one end by the elastic washer *d* and at the other end by the latch *t*. When it is desired to remove the brush the latch *t* is pressed back by the hand of the operator and 95 the brush swung up and lifted out while the holder is vibrating at its regular speed, such speed never being so great as to prevent the hand of the operator from vibrating with it as he is working the latch and removing the brush, swinging it up as indicated in dotted 100 lines in Fig. 2.

Having thus fully described my invention, what I claim and desire to secure by Letters-Patent, is:—

1. A brush holder for paper coating machines consisting of a frame having an opening therethrough, combined with 105 a brush the back of which extends beyond the bristle-holding portion thereof so that the bristles may project through the lower side of said opening with portions of the back of the brush resting upon underlapping portions of said frame, and a spring catch or latch engaging said 110 body portion of said brush when the latter is seated in

said frame; whereby said brush is adapted to be detachably secured to said frame in such a manner that it may be quickly removed therefrom through the upper side of said opening.

5 2. A brush holder for paper coating machines consisting of a frame having an opening therethrough, and having outwardly extending end rods by which it may be reciprocated, combined with a brush the back of which extends
10 beyond the bristle-holding portion thereof so that the bristles may project through the lower side of said opening with portions of the back of the brush resting upon underlapping portions of said frame, and a spring catch or latch engaging said body portion of said brush when the latter is seated in said frame; whereby said brush is adapted to be
15 detachably secured to said frame in such a manner that it may be quickly removed therefrom through the upper side of said opening.

3. A brush holder for paper coating machines consisting of a frame having an opening therethrough, with brush-supporting or shelf portions at or near the ends of said opening, combined with a brush the back of which extends
20 beyond the bristle-holding portion thereof so that the bristles may project through the lower side of said opening with portions of the back resting upon the said brush-supporting or shelf portions of said frame, and a spring
25 catch or latch engaging said body portion of the said brush when the latter is seated in said frame; whereby said brush is adapted to be detachably secured to said frame in such a manner that it may be quickly removed therefrom
30 through the upper side of said opening.

4. In a paper coating machine, the combination of a flat brush having portions of its back projecting beyond its bristle portion, a movable frame or holder therefor having
35 a central opening therethrough for the reception of the bristle portion of the said brush, said holder comprising end walls, one of which is provided with a socket at one end of said opening for the reception of a projecting por-

tion of the brush back, and another of which, at the other end of said opening in said frame or holder, has a portion on which another projecting portion of the brush back
40 rests, with the bristles of the brush projecting below, and spring-operated locking means for securing the free end of the brush back in place and permitting of its quick removal from the upper side of said frame or holder.

5. In a paper coating machine, the combination of a flat
45 brush having portions of its back projecting beyond its bristle portion, a movable holder therefor having a central opening therethrough for the reception of the bristle portion of the said brush, means extending inwardly from one end of said central opening for the reception of a project-
50 ing portion of the brush back, and engaging mechanism at the other end of said central opening, in normal engagement with the brush, but capable of being withdrawn from such engagement, whereby the brush may be removed from
55 the holder without stopping the machine.

6. In a paper coating machine, the combination of a flat brush having portions of its back projecting beyond its bristle portion, a movable holder therefor having a central opening therethrough for the reception of the bristle portion of the said brush, an inward extension from one end
60 wall of the said opening adapted to overlap one end of the brush, supporting means integral with the said holder for supporting and underlapping the brush, a bolt sliding in the end wall opposite that which is provided with the inward extension, a latch supported by the inner end of the
65 said bolt, and a spring holding said latch normally over the end of the brush.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN B. MORROW.

Witnesses:

ALFRED E. COSSALOOM,
WALTER C. CHENEY.