

A. S. PAYNE & B. J. WADE.  
BRUSH MAKING MACHINERY.  
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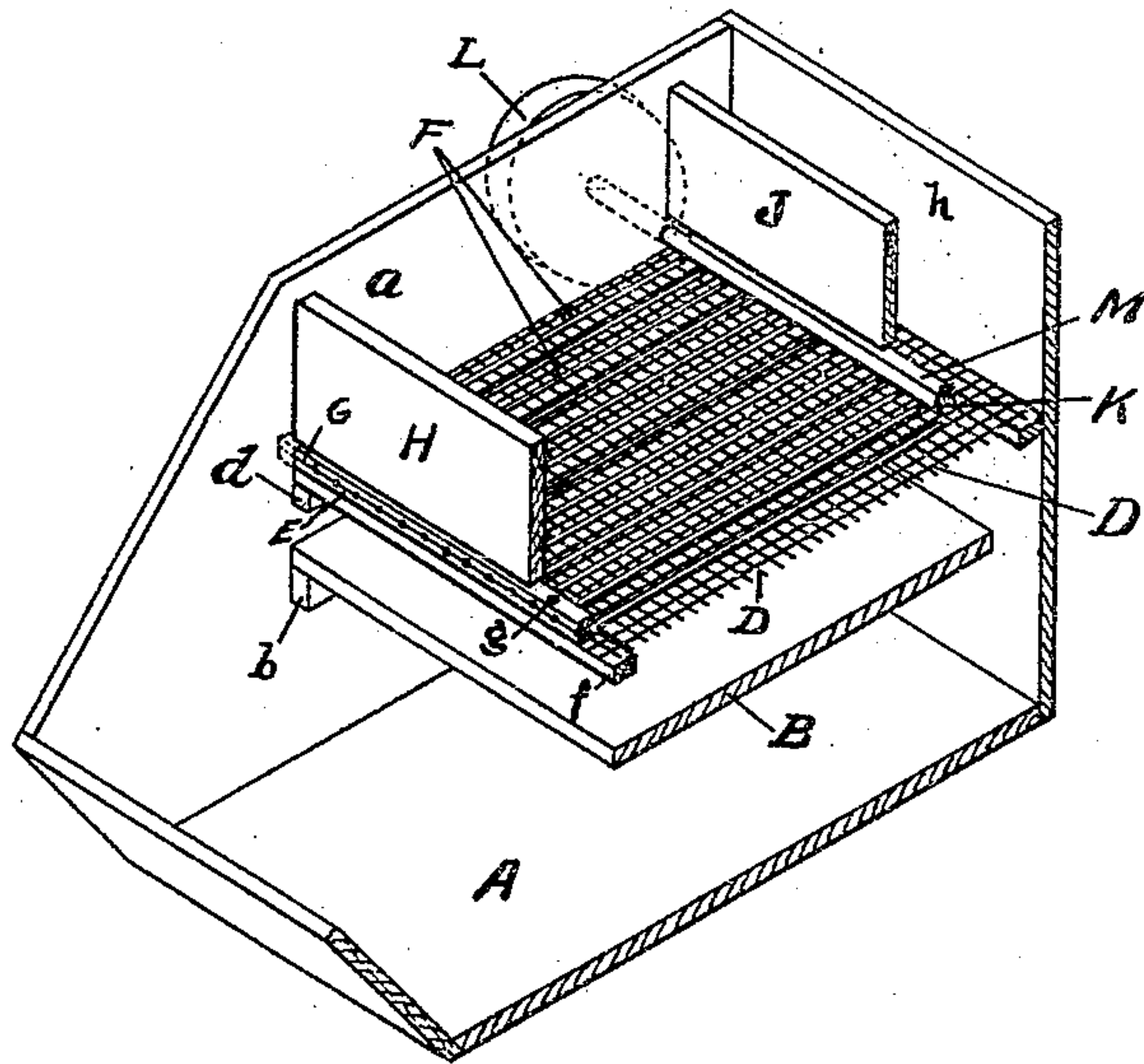


Fig. 1.

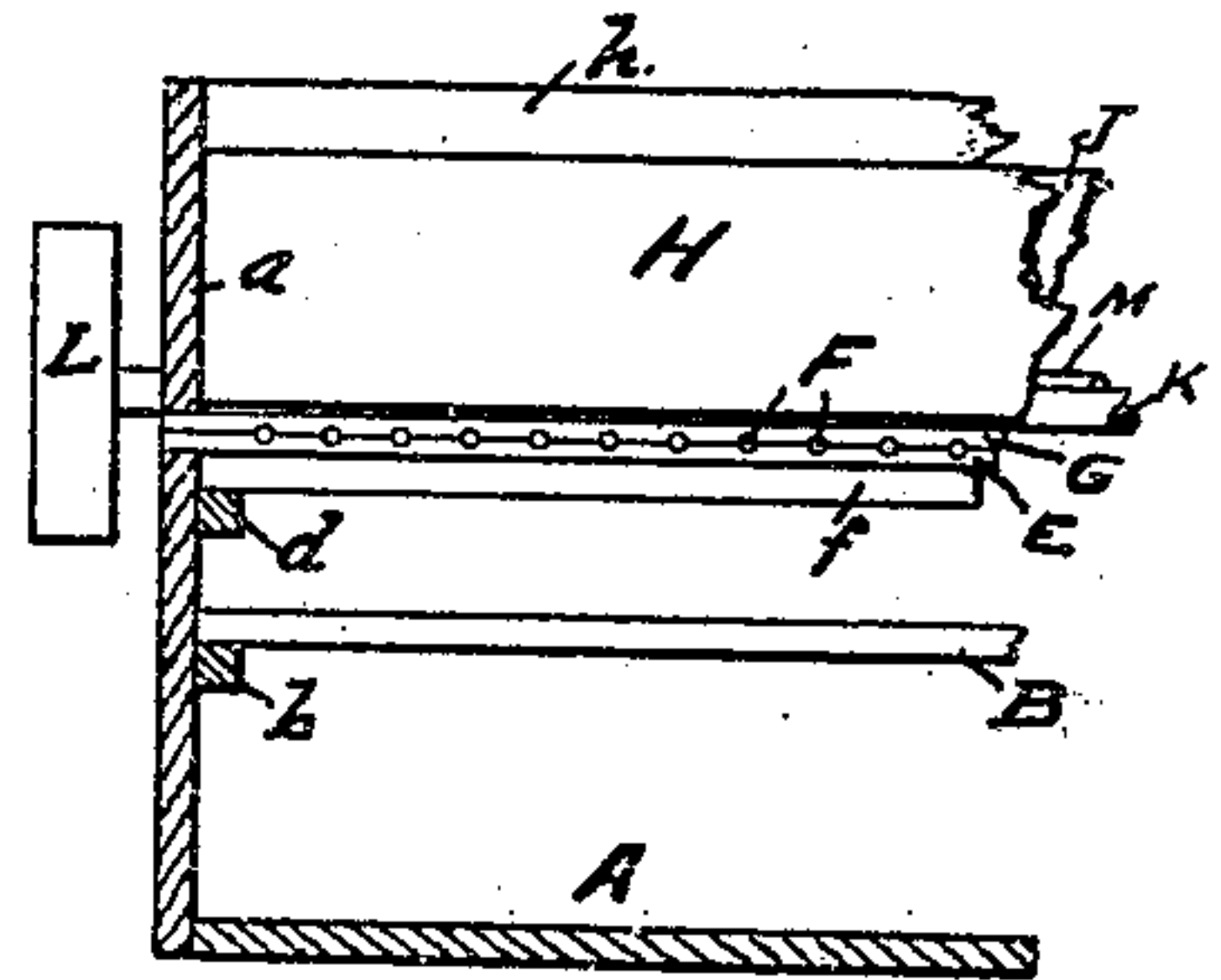
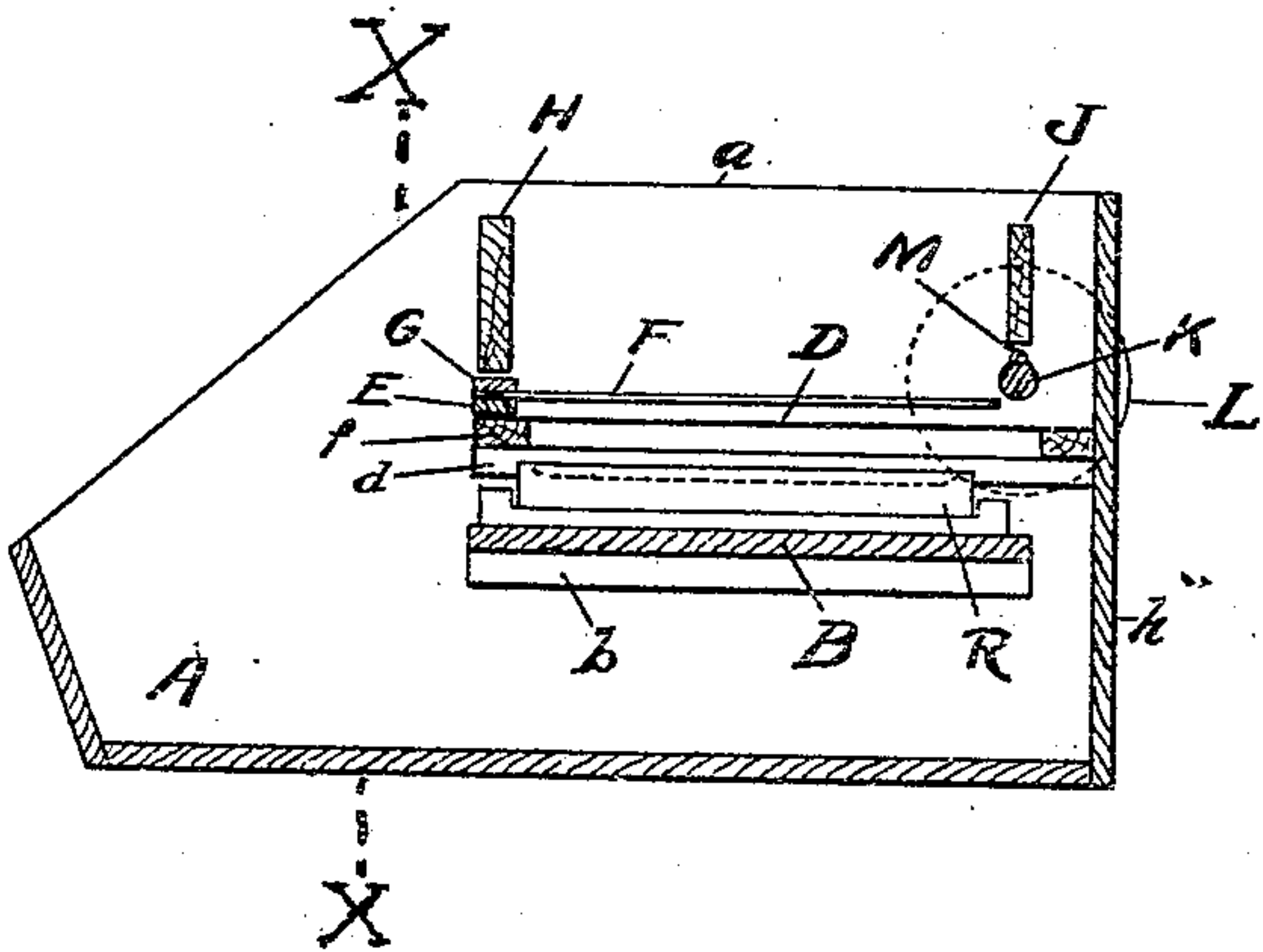


Fig. 3.

Fig. 2.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

ARTHUR S. PAYNE AND BERNARD J. WADE, OF TROY, NEW YORK.

BRUSH-MAKING MACHINERY.

958,431.

Specification of Letters Patent.

Patented May 17, 1910.

Application filed April 1, 1909. Serial No. 487,160.

*To all whom it may concern:*

Be it known that we, ARTHUR S. PAYNE and BERNARD J. WADE, both citizens of the United States, and both residing at the city of Troy, in the county of Rensselaer and State of New York, have invented certain new and useful Improvements in Brush-Making Machinery, of which the following is a specification.

Our invention relates to brush making machinery, and the object of our invention is to provide a device for filling bristles into a die or brush back, whereby, without the aid of the hand of the operator, bristles may be caused to pass into the recesses of the die or brush back, together with such other elements and combinations as are hereinafter more particularly claimed. We accomplish this object by means of the mechanism illustrated in the accompanying drawings, in which:

Figure 1 is a perspective view with parts broken away. Fig. 2 is a longitudinal section of our invention. Fig. 3 is a section along the line X—X on Fig. 2 with parts broken away.

Similar letters refer to similar parts throughout the several views.

Within a suitable box, A, we place a plate, B, which may rest upon cleats, *b*, attached to opposite sides of the box, A, respectively. Above the plate, B, sufficiently removed from said plate to permit of the brush back or die or other bristle receiving device, R, Fig. 2, to be placed upon the plate, we place a screen, D, which screen rests upon cleats, *d*, attached to opposite sides of the box, A. Above the screen, D, we place a strip, E, which may be secured at one end in the frame, *a*, of the box, A, upon which strip we lay the ends of a series of rods, F, which extend over the screen, D, and separated therefrom at least a distance equal to the thickness of the strip E. The ends of the rods, F, opposite the strip, E, are preferably loose.

Over the strip E and resting upon the ends of the rods, F, and secured on the frame *a* of the box A is a strip G. The strips, E and G, are fastened together by means of screw or bolt, *g*, or in any suitable manner.

Above the strip G and extending across the box, A, we preferably place a board, H, which, with the side, *a*, of the box, A, form two sides of a retaining box for the bristles,

the other sides are formed by the end, *h*, and the side of the box, A, opposite, *a*, and not shown. We place a board, J, across the box, similar to board, H, which will serve to keep the bristles over the rods, F, and protect the eccentric rod, K, from winding the bristles about it and thereby becoming entangled with them.

Above the screen, D, and at or near the ends of the rods, F, we place an eccentric rod, K, which passes through the side, *a*, of the box, on the end of which may be placed a means, L, for imparting rotary motion thereto. The eccentric rod, K, is constructed in such a manner as to have projected from one side thereof a usually half round portion, M, and in the rotation of the rod, K, the portion, M, will engage the ends of the rods, F, and either press them downward or raise them upward, depending upon the direction of the rotation of the eccentric rod, K. After the projection, M, has reached a certain position in its movement the ends of the rods, F, will spring therefrom, which will cause a sharp, violent disturbance of the contents of the bristle holding receptacle. Bristles are placed in the bristle holding receptacle above the rods, F. It is apparent that when the rods, F, are acted upon by the eccentric rod, K, the bristles in the receptacle will be violently disturbed and as a consequence many of them will assume a substantially vertical position and pass through the meshes of the screen, D, into such dies, brush backs or forms, R, as are placed on the plate, B, to receive them.

In our device the bristle holding receptacle is retained securely in position, because there is no attempt made to agitate it, and thus we prevent separation of the parts and the annoyance attendant upon the accumulation of the bristles in the openings, caused by said separation, and the loss of material which naturally follows a leak or break in the box. By our means of springing the rods we direct positive and forceful blows to the bristles, which insures their disentanglement and complete change of position, much more effectively than a continuous vibration will produce.

We do not limit ourselves to the position of the die supporting plate, B, nor to the manner of supporting the screen and rods. A means for the ready removal of the screen, D, however, is advisable and our arrangement for permitting its withdrawal is very

simple, resting, as it does, on the cleats, *d*, it may be pulled out when the operator so desires.

What we claim as our invention, and desire to secure by Letters Patent is:

1. A bristle feeding device comprising a screen; a series of rods extending above the screen with which the bristles are in contact; a means for imparting to the said rods a sharp violent intermittent motion.
2. In a means for feeding bristles; a

screen; a series of rods placed above the screen; an eccentric arranged to intermittently spring said rods, substantially as described.

In testimony whereof we have affixed our signatures in presence of two witnesses.

ARTHUR S. PAYNE.  
BERNARD J. WADE.

Witnesses:

FREDERICK W. CAMERON,  
LOTTIE PRIOR.