R. C. ALTON.

Machine for Covering Strands for Making Bullion.

No. 202,774. Patented April 23, 1878.

Fig 1

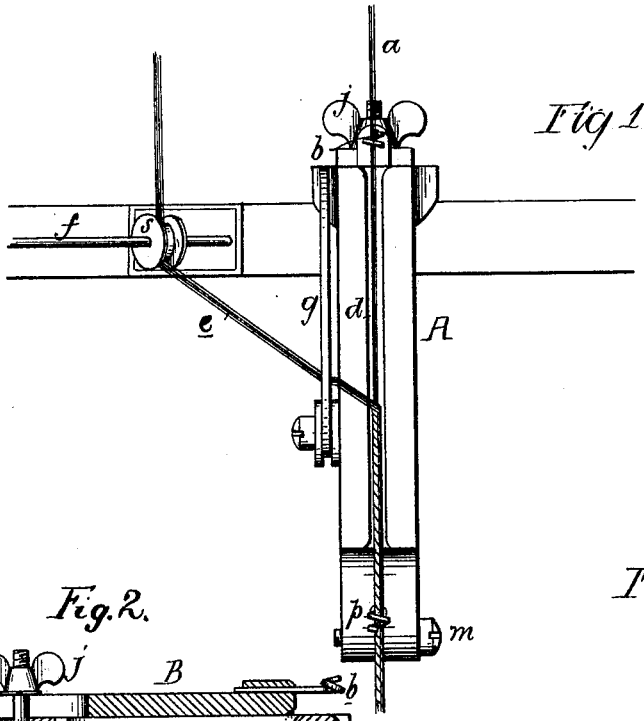



Fig. 2.

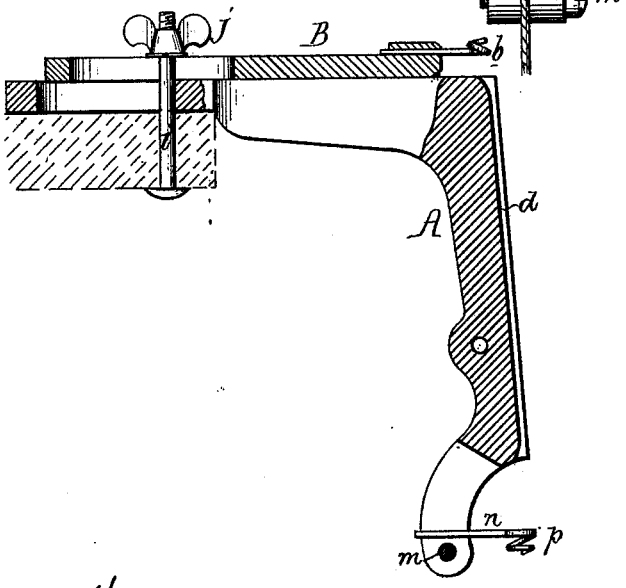
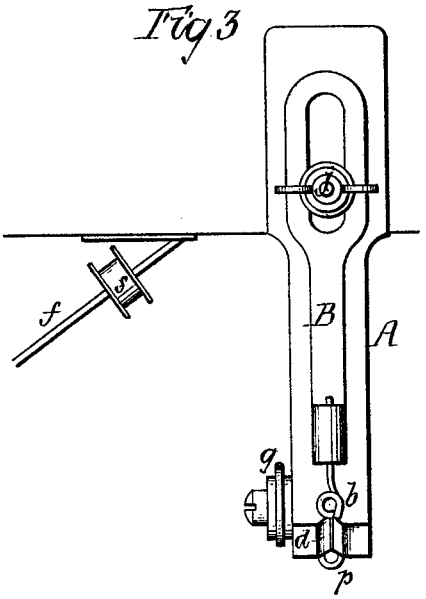



Fig 3




Witnesses

Henry Howson Jr

Harry Smith

Inventor

Richard C. Alton

by his Attorneys

Howson and Sons

# UNITED STATES PATENT OFFICE.

RICHARD C. ALTON, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO F. ODEN HORSTMANN, SAMUEL CLARKSON, WILLIAM P. ELLISON, AND WALTER HORSTMANN, OF SAME PLACE, TRUSTEES OF ESTATE OF WILLIAM J. HORSTMANN, DECEASED.

## IMPROVEMENT IN MACHINES FOR COVERING STRANDS FOR MAKING BULLION.

Specification forming part of Letters Patent No. **202,774**, dated April 23, 1878; application filed June 9, 1877.

*To all whom it may concern:*

Be it known that I, RICHARD C. ALTON, of Philadelphia, Pennsylvania, have invented a new and useful Improvement in Machines for Covering Strands for the Manufacture of Bullion, of which the following is a specification:

My invention relates to certain improvements in the bullion-machine for which Letters Patent of the United States No. 146,222 were granted to my assignees on the 6th day of January, 1874, the objects of my present improvements being to facilitate the operation of the machine and to improve the product. These objects I attain in the following manner, reference being had to the accompanying drawing, in which—

Figure 1 is a front view of sufficient of a machine for covering strands for bullion to illustrate my invention; Fig. 2, a vertical section of part of the same; and Fig. 3, a plan view.

In the above-mentioned patented machine the cotton strands forming the core passed through a fixed eye at the top of a plate, thence along a groove formed in the face of the said plate, and finally to the flier, by which the twisting operation was performed. The covering-strands, of silk or other suitable material, passed first around an inclined bar arranged adjacent to the plate, and thence between the edge of said plate and a rod hung to the side of the same, this rod serving to flatten and spread the threads prior to their being wrapped around the core. In the present instance, however, the eye *b* at the upper end of the plate A, instead of being rigid, as in the patented machine, is carried by a slotted plate, B, which can be adjusted longitudinally to any desired position, and secured in position after adjustment by means of a bolt, *i*, and thumb-nut *j*.

The grooved portion of the plate A, instead of being straight, as before, is inclined outward from top to bottom; and below this grooved portion the plate is slotted, the slotted portion being adapted for the reception of a stem, *n*, on the outer end of which is formed an eye, *p*, through which the covered core *a* passes after it leaves the groove *d*, and before reaching the flier.

By loosening the threaded bolt *m*, with which the slotted portion of the plate A is provided, the stem *n* may be moved in or out to an extent which the desired position of the eye *p* may demand, the stem being secured in position after adjustment by tightening the bolt. By the use of these adjustable eyes *b* and *p* the core *a*, whatever its diameter may be, is forced tightly into the groove *d*, and a smooth and regular appearance thus imparted to the covering-strands *e* as they are wrapped around said core, the inclination of the plate A also assisting in the production of this result. In other words, by combining an adjustable instead of a rigid eye, *b*, with an inclined instead of a straight plate, A, different sizes of covered cores may be made on the same machine, each core being firmly packed into the groove in the inclined face, and a smooth and regular appearance imparted to all the cores, irrespective of their size.

The strands *e*, instead of passing directly around the inclined rod *f*, as in the patented machine above mentioned, pass around a roller, *s*, adapted to said rod *f*. This roller, besides permitting an easier movement of the strands, serves to spread the same, and thus aid the rod *g* in performing its duty. The roller is, by preference, hung loosely to the rod *f*, so that it may move along the same to accommodate itself to the varying height at which the threads are delivered from the spool.

I claim as my invention—

1. The combination, in a bullion-machine, of the grooved and inclined plate A with the adjustable eye *b* above the groove, as set forth.

2. The combination, in a bullion-machine, of the grooved plate A with an adjustable eye, *p*, below the groove, as specified.

3. The plate A, having a grooved and inclined face, in combination with the eyes *b* and *p*, as described.

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

RICHARD C. ALTON.

Witnesses:
HERMANN MOESSNER,
HARRY SMITH.