F. W. HUPPELSBERG.

Chenille Twisting Machine.

No. 227,788. Patented May 18, 1880.

Fig. 1.

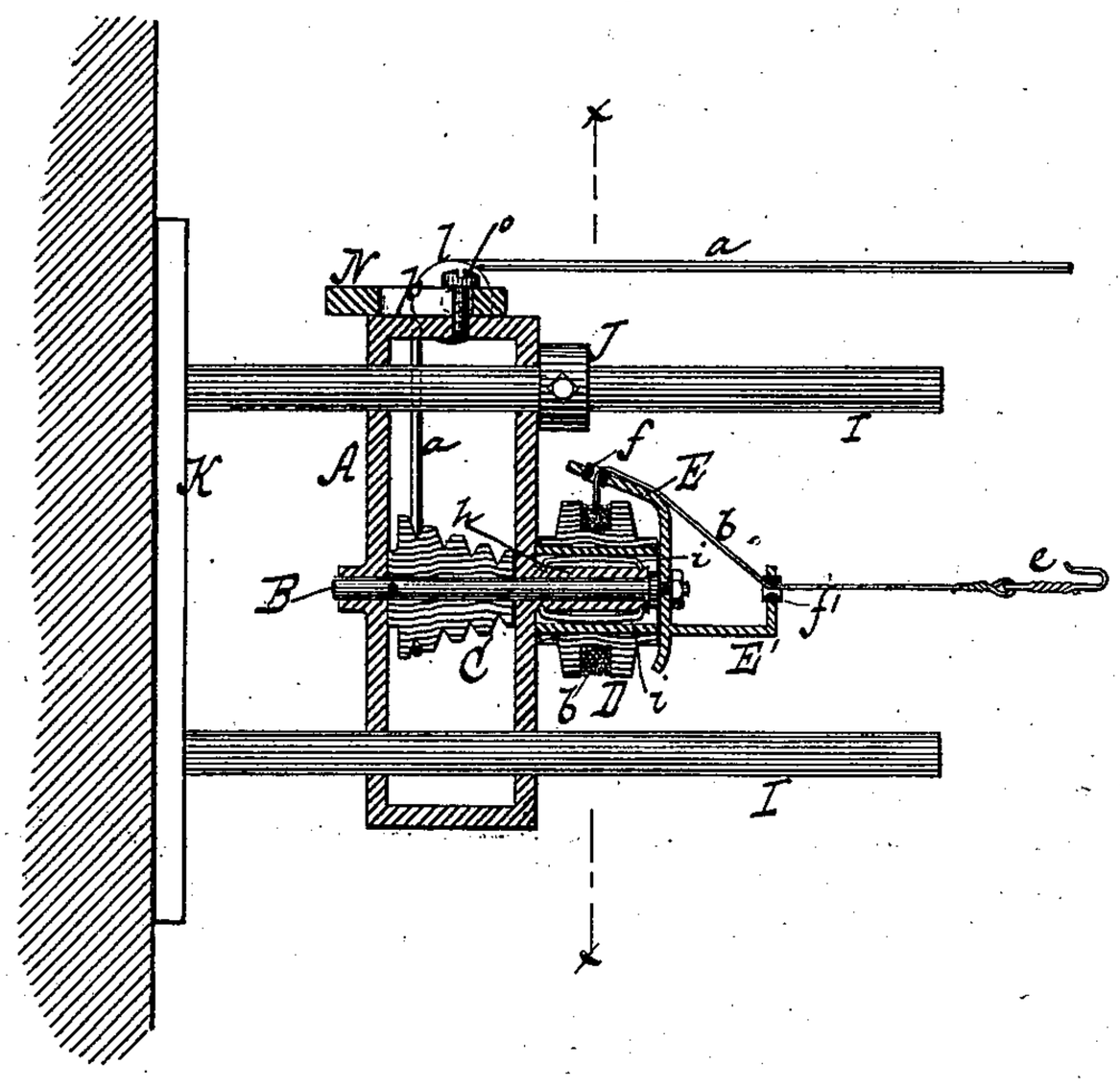
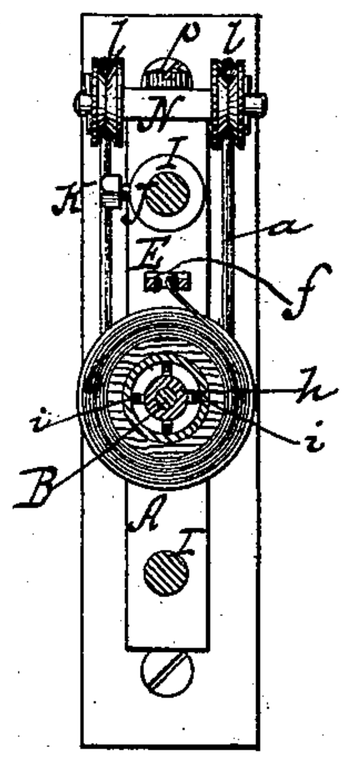


Fig. 2.



Witnesses

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UNITED STATES PATENT OFFICE.

FRIEDRICH W. HUPPELSBERG, OF BROOKLYN, NEW YORK, ASSIGNOR TO STEINBORN & HUPPELSBERG, OF SAME PLACE.

CHENILLE-TWISTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 227,788, dated May 18, 1880.

Application filed February 19, 1880.

To all whom it may concern:

Be it known that I, FRIEDRICH W. HUPPELSBERG, of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Chenille-Twisting Machines, which invention is fully set forth in the following specification, reference being had to the accompanying drawings, in which—

Figure 1 represents a sectional side view. Fig. 2 is a transverse section in the plane *x x*, Fig. 1.

Similar letters indicate corresponding parts.

In the manufacture of chenille and of covered cords a twister is used for twisting together the several strands composing the chenille or the covered cord as they leave the machine used for covering the same.

Heretofore a traveling twister has been used for this purpose, said twister being composed of a carriage which carries a revolving hook, and which is suspended from a rod or wire on which it is gradually drawn back away from the covering-machine, while the hook to which the chenille or cord is attached receives a revolving motion, so that by said hook the required twisting action is produced, while at the same time, by the receding action of the carriage, the chenille or cord is drawn out of the covering-machine as fast as the same is covered.

My invention consists in a stationary twister composed of a frame, a spindle which has its bearings on said frame, and to which a revolving motion is imparted by a belt or other suitable means, and a twisting and drawing head composed of a stationary spool surrounding the spindle, a wire, cord, or band wound on said spool, and provided at its free end with means of attachment to the chenille, and two guides carried by said spindle, one occupying a radial position toward the spool, while the other is in line with the spindle, so that the wire, cord, or band may be drawn from the spool through the guides toward the covering-machine for attaching to it the end of the chenille or cord as the same passes out of the covering-machine, and a revolving motion may then be imparted to the twisting head, whereby a twisting action is produced on the wire, cord, or band, and at the same time said wire, cord, or band is wound up slowly on the spool, so as to both twist the chenille or cord and to draw the same out as fast as it is delivered from the cording-machine. The spool is held on its bearing by frictional contact, so that its drawing action is confined within certain limits, and the frame which carries the twisting head is made adjustable to permit of regulating the tension of the belt which serves to impart a revolving motion to the twisting and drawing head.

In the drawings, the letter A designates the frame of my twister, and B the spindle, which latter has its bearings in the frame, and on which is mounted a cone-pulley, C, to receive a belt, *a*, for imparting to the spindle a revolving motion.

D is a spool carrying a wire, *b*, or in lieu thereof a cord or band, and E E′ two guides, which parts constitute the compound twisting and drawing head. The spool D surrounds the spindle B, but is stationary under normal conditions, and the wire *b*, or its substitute, is attached to the spool at one end, so that it may wind thereon, while the other or free end thereof is provided with a hook, *e*, or other device adapted to connect with the chenille or covered cord to be twisted. The guides E E′ are fastened together and are fixed on the spindle B so as to revolve therewith, and the guide E carries an eye, *f*, which is radial to the spool D, while the guide E′ carries an eye, *f′*, which coincides with the axis of the spindle.

The wire *b*, or its substitute, passes through the eyes *f f′* of the guides, and in applying the apparatus to use the end of the wire is drawn toward the cording or covering machine, situated at a distance from the twister, the bulk of the wire being thus unwound from the spool D. The end of the chenille or covered cord is then attached to the wire *b*, and a revolving motion is given to the spindle B in a suitable direction to cause the wire to be wound on the spool by the action of the guides E E′. In this manner the wire is twisted with a like action on the chenille or cord, while it is also drawn toward the twisting-head, so as to take up the chenille or cord as it issues from the covering-machine.

The spool D is mounted on a sleeve, *h*, pro-

jecting from the frame A, and the inner diameter of the spool is greater than this sleeve, while between the two are interposed springs or cushions *i*. It follows that the spool D is held in place by frictional contact, and the result of this arrangement is that if the tension on the wire *b* and the chenille or cord attached thereto increases at any stage of the twisting operation the spool begins to revolve, and the wire ceases to wind thereon until the tension again reaches the normal standard.

The belt *a* is shifted to act on different parts of the cone-pulley C for obtaining different speeds, and in order that the belt may be kept in a taut condition at all times I make the frame A adjustable. Thus when the belt *a* is shifted from one to another part of the pulley C the frame may be set to increase or reduce the distance between the pulley and the source from which it is driven. To this end the frame A is mounted on parallel bars I so as to slide thereon, and either or both of these bars is provided with an adjustable collar, J, constituting a stop to the frame. The bars I I project from a wall-plate, K, and, together with this plate, form a bracket.

As the belt leaves the pulley C it passes over guide-wheels *l l*, and in order that the belt may be kept at a right angle to the pulley, in any of its positions, the guide-wheels are mounted in a block, N, which is adjustably attached to the frame A by means of a set-screw, *o*, fitted into a slot, *p*, in the block, as clearly shown in Fig. 1.

It may be remarked that I do not claim, broadly, as my invention a twister which simultaneously draws the chenille or cord away from the covering-machine and twists the same; but

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination of a fixed frame, a spindle which has its bearings in said frame and is adapted to receive a revolving motion by a belt or other suitable means, and a twisting and drawing head mounted on said frame and spindle, said twisting and drawing head consisting of a stationary spool containing a permanently-attached strand of wire or a cord or band, provided at its end with means for attachment to the chenille, and two guides through which the wire, cord, or band is passed, all constructed and operating substantially as and for the purpose described.

2. The combination, with a twisting-head of the character specified and the cone-pulley C, of a fixed bracket and a frame adjustably secured on said bracket, substantially as and for the purpose described.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 5th day of February, 1880.

F. W. HUPPELSBERG. [L. S.]

Witnesses:
W. HAUFF,
E. F. KASTENHUBER.