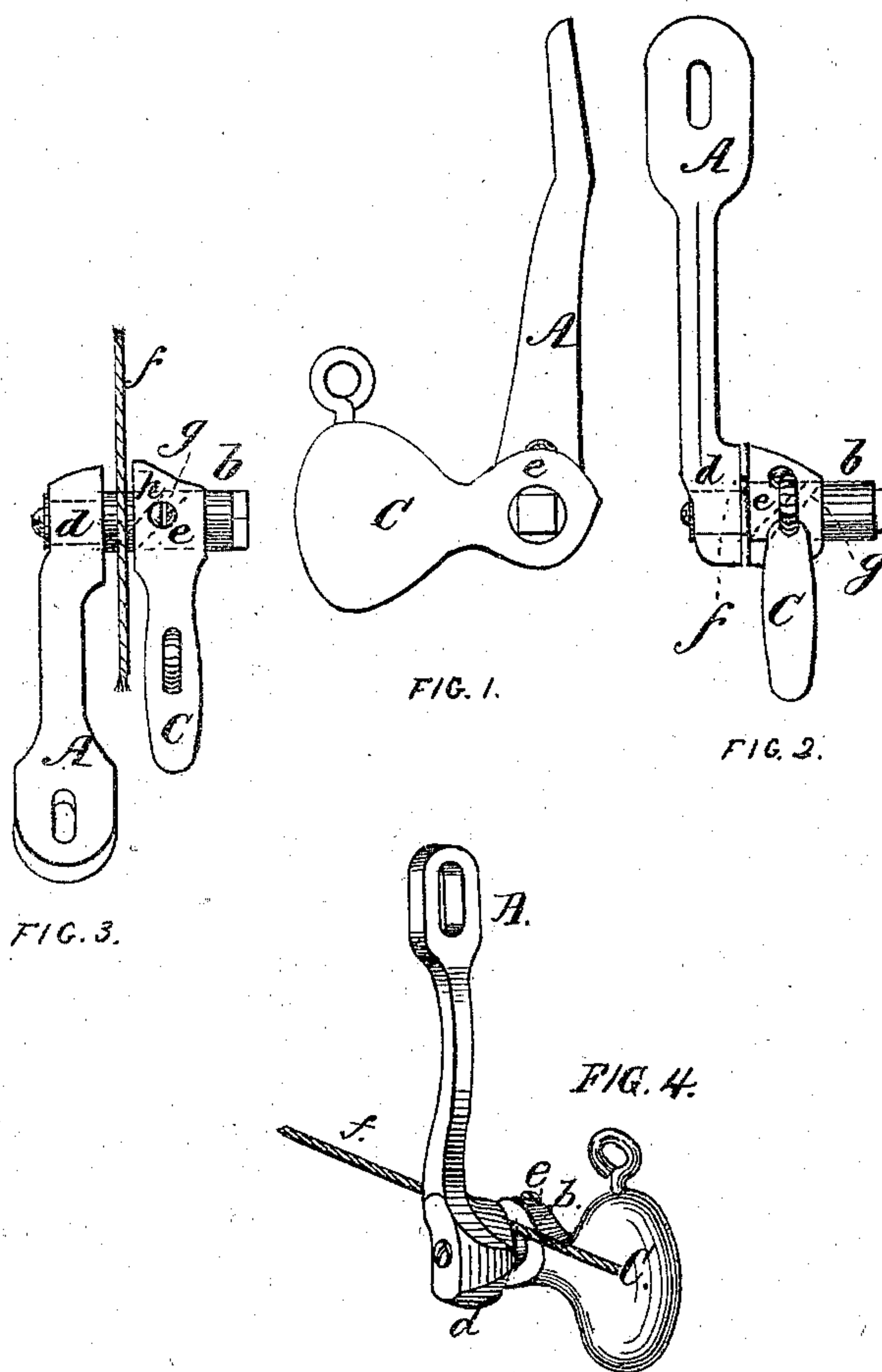


G. O. WICKERS.
Self-Acting Spinning-Mules.

No. 137,334.

Patented April 1, 1873.



WITNESSES.

Wm. C. Hibbard
Albert E. Downes

INVENTOR.

G. O. Wickers

UNITED STATES PATENT OFFICE.

GEORGE O. WICKERS, OF NORTH ANDOVER, MASSACHUSETTS.

IMPROVEMENT IN SELF-ACTING SPINNING-MULES.

Specification forming part of Letters Patent No. **137,334**, dated April 1, 1873; application filed September 30, 1872.

To all whom it may concern:

Be it known that I, GEORGE O. WICKERS, of North Andover, in the county of Essex and State of Massachusetts, have invented an Improvement in Mules for Spinning, of which the following is a specification:

This invention is for an improved device called the grab, which is attached to the carriage in self-acting mules, so called, to seize the belt or band that operates the screw or other device that is used upon the radial arm to vary the position of the point of attachment of the winding band or chain to said arm to vary the winding motion of the spindles according to the varying size of the bobbin. This device is connected with the counter-faller, so called, and operated by it, so that when the counter-faller is lowered too much by the too rapid winding of the yarn it will lower the weighted lever of the grab, and, by the mechanism to be described, will cause it to seize the band and move it with the carriage so as to operate the mechanism upon the radial arm and thereby make the adjustment required, which is well understood by mule-spinners.

The mechanism to be described is exceedingly simple, and has the useful property of not jamming upon the belt by the seizure of the same; but will release the belt with freedom when it is required, so that it is put entirely under the control of the counter-faller without the assistance of any other devices.

In the drawing, Figure 1 is a side elevation. Fig. 2 is an elevation at a right angle thereto; and Fig. 3 is a plan of the same; and Fig. 4 is a perspective view of the device.

A is a standard of the form shown, which is attached to the carriage of the mule, and has, at its lower end, a boss, which carries a stud, *b*, which serves as an axis upon which the weighted lever C vibrates. The boss *d* upon the standard A serves as the fixed jaw of a clamp; and the boss *e* upon the lever C serves as the movable jaw of the same, between which the endless band or cord *f* is held when the movable jaw is forced toward the fixed jaw by the weight upon the lever C, which is done by means of the helical groove *g* in the stud *b*, in which works the inner end of the screw *h*, which is fixed in the hub of the lever C, so that, as the lever is vibrated upon its axis, it moves toward and from the standard, and opens and closes the clamp, and holds or releases the cord *f* without jamming, for the reason that the obliquity of the groove *g* is made so great as to prevent it. A cord leads from the weighted lever C to the counter-faller in the usual way, and by it the position of the lever C is determined.

What I claim is—

The device constructed substantially as described, having a fixed jaw and a movable jaw attached to a weighted lever to form a clamp, which is opened and closed by an incline, and operated by the counter-faller, substantially as described.

Executed September 23, 1872.

G. O. WICKERS.

Witnesses:

WM. C. HIBBARD,
ALBERT E. DOWNS.