G. S. ROMINGER.

Retaining and Releasing Device for Fly-Wheels.

No. 226,113 Patented Mar. 30, 1880.

FIG. 3.

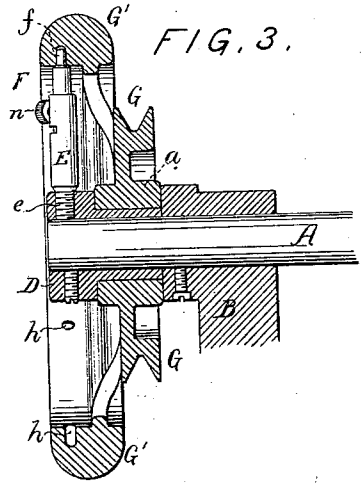


FIG. 1.

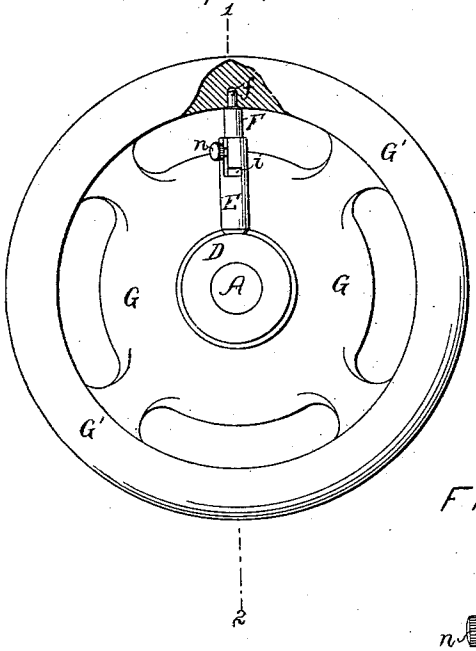


FIG. 2.

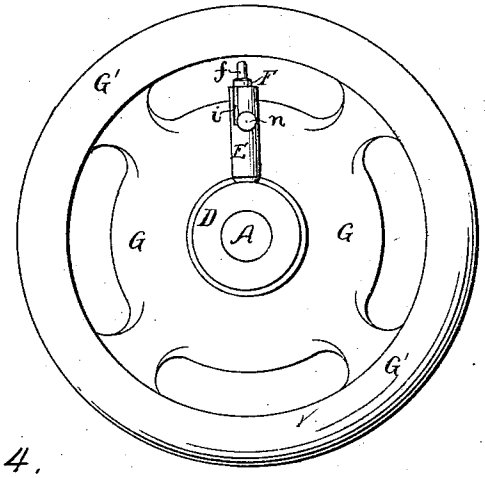
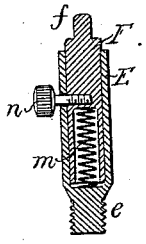


FIG. 4.



WITNESSES

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UNITED STATES PATENT OFFICE.

GEORGE S. ROMINGER, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO THE AMERICAN BUTTONHOLE OVERSEAMING AND SEWING MACHINE COMPANY, OF SAME PLACE.

RETAINING AND RELEASING DEVICE FOR FLY-WHEELS.

SPECIFICATION forming part of Letters Patent No. 226,113, dated March 30, 1880.

Application filed February 24, 1880.

To all whom it may concern:

Be it known that I, GEORGE S. ROMINGER, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented an Improvement in Retaining and Releasing Devices for Fly-Wheels, of which the following is a specification.

My invention consists of a clutching device, too fully described hereinafter to need preliminary explanation, whereby the fly-wheel and pulley of a sewing-machine may be unlocked from the driving-shaft when they have to be used for driving the spool-winder without driving the sewing-machine, and whereby the said fly-wheel and pulley may be locked to the shaft when the sewing-machine has to be operated.

In the accompanying drawings, Figure 1 is a view showing the end of the driving-shaft of a sewing-machine, the face of the fly-wheel partly in section, and illustrating the wheel locked to the shaft by my improved clutching device; Fig. 2, the same as Fig. 1, but showing the clutch disengaged from the wheel; Fig. 3, a longitudinal section on the line 1 2, Fig. 1, and Fig. 4 a sectional view, drawn to an enlarged scale, of the clutching device.

A is the main or driving shaft of a sewing-machine; B, part of the frame of the machine, and D a sleeve secured to the shaft A and forming a bearing for the hub *a* of the grooved pulley G and fly-wheel G′, which are connected together by arms *b* and cast in one piece.

Into the sleeve D is screwed the threaded end *e* of the tubular socket E, in which a bolt, F, is arranged to slide freely and also to turn to a limited extent, the outer end, *f*, of the bolt being adapted to any one of a number of orifices *h*, four in the present instance, in the rim of the fly-wheel.

The bolt E is recessed to receive a spiral spring, *m*, which, bearing at one end against the bottom of the socket, and at the other end against the bolt, tends to force the latter outward.

The threaded end of a pin, *n*, is screwed into the bolt F, and this pin is adapted to a bayonet-slot, *i*, in the socket E, so that when the bolt has been depressed into the socket to its full extent it can be turned laterally by manipulating the head of the pin, and the latter will be retained in the transverse portion of the bayonet-slot, in which case the bolt will be free from the fly-wheel, and the latter may be used for driving the spindle which carries the spool when the thread has to be wound on the same without turning the main shaft of the sewing-machine.

On turning the bolt back, however, so that the pin will be clear of the transverse portion of the bayonet-slot and will coincide with the longitudinal portion of the same, the bolt will be forced outward, and its outer end, as the wheel revolves, will enter the first of the orifices in the rim with which it may chance to coincide, when the fly-wheel and its pulley will be locked to the shaft.

The outer end of the longitudinal portion of the bayonet-slot may, if desired, be inclined so as to prevent the accidental retraction of the bolt F, and instead of securing the socket E to a sleeve, D, said socket may be secured directly to the shaft A, if preferred.

I claim as my invention—

The combination of the main or driving shaft A of a sewing-machine and the fly-wheel and pulley with the socket E, secured to the shaft or to a sleeve or collar thereon, and carrying the spring-bolt F, the latter being adapted to orifices in the fly-wheel, and having a pin, *n*, adapted to a bayonet-slot in the socket, all substantially as set forth.

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

GEO. S. ROMINGER.

Witnesses:
JAMES F. TOBIN,
HARRY SMITH.