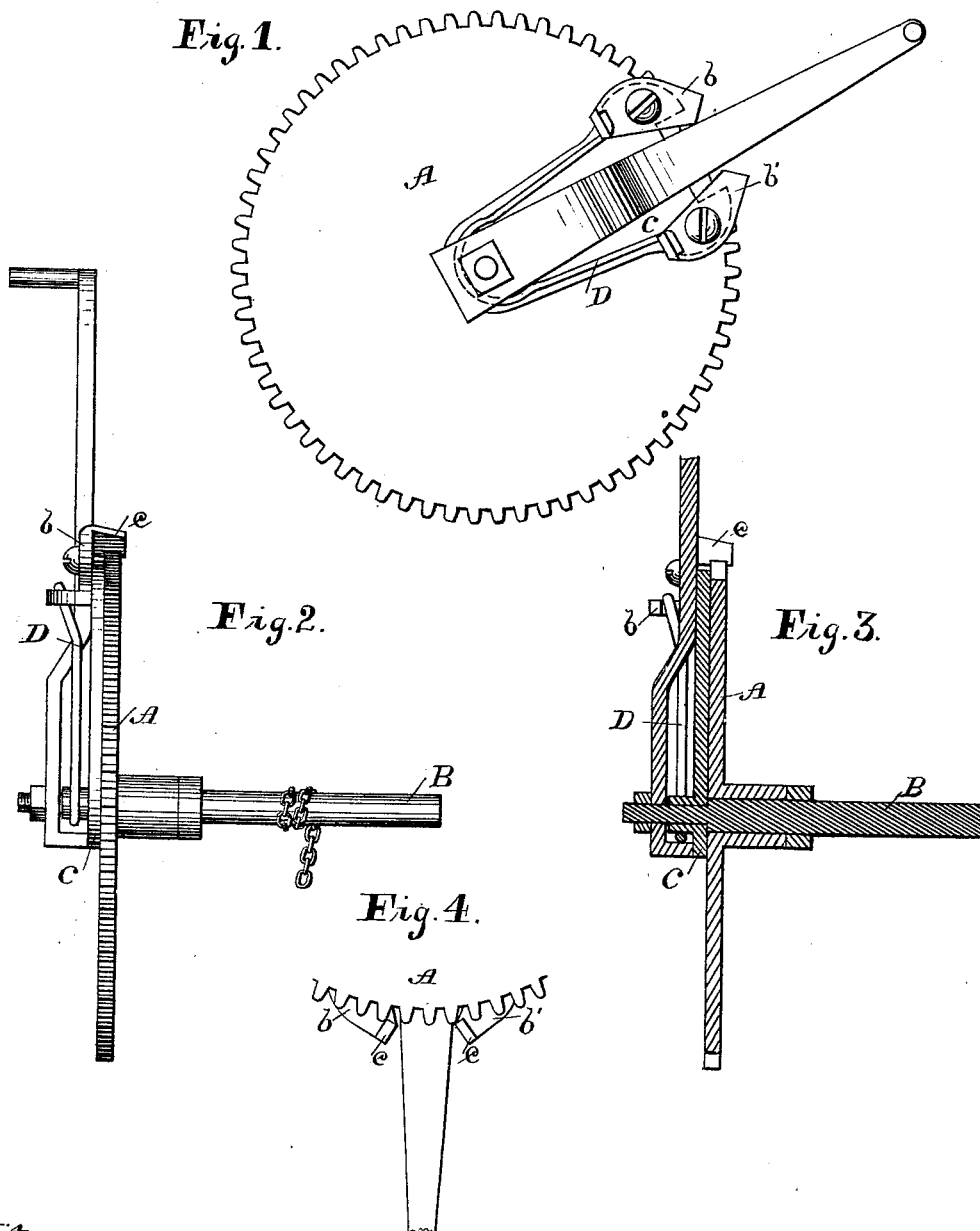


O. O. STORLE.
Self-Locking and Releasing Attachment for Levers,
Crank-Arms, &c.

No. 220,552.

Patented Oct. 14, 1879.



Witnesses:

Edwin E. Ames.
J. C. Valandingham

Inventor:

Ole O. Storle
per S. S. Stink
Attorney

UNITED STATES PATENT OFFICE.

OLE O. STORLE, OF MILWAUKEE, WISCONSIN, ASSIGNOR OF TWO-THIRDS
OF HIS RIGHT TO J. G. FLINT, JR., OF SAME PLACE.

IMPROVEMENT IN SELF LOCKING AND RELEASING ATTACHMENTS FOR LEVERS, CRANK-ARMS, &c.

Specification forming part of Letters Patent No. **220,552**, dated October 14, 1879; application filed
September 1, 1879.

To all whom it may concern:

Be it known that I, OLE O. STORLE, of Milwaukee, in the county of Milwaukee, and in the State of Wisconsin, have invented certain new and useful Improvements in Self Locking and Releasing Attachments for Levers, Crank-Arms, &c.; and do hereby declare that the following is a full, clear, and exact description thereof.

My invention relates to self locking and releasing attachments for levers, cranks, &c., and consists in a device by which a lever is rendered self engaging and releasing, as will hereinafter be more fully described.

In the drawings, Figure 1 represents a side view of my invention; Fig. 2, an edge view; Fig. 3, a vertical section through the ratchet-wheel and detents of the pawls, and Fig. 4 a detail.

A represents the spur-disk commonly applied to the frames of windlasses, and through the center of this a shaft is passed. Keyed to this shaft is an arm, C, which works up against the face of the spur-disk, and which carries a couple of pawls, *b b'*, having hooks at one end to engage with the bent spring D, and at the other end detents *c c*, of rectangular form, for engagement with the cogs.

The operating-lever is slipped onto the shaft after the plate or arm C has been put on, is fastened by a key or nut, and projects up between the two detents, which lean toward each other. Now, by forcing the lever either way, it will be made to strike the opposing pawl and raise it up from engagement with the face of the disk or segment, to fall again only when pressure in that direction is removed from the lever. Pressure in an opposite direction will raise the correspondingly-opposing pawl, while

both pawls will be in engagement when the lever is at rest.

The shaft B may receive a rope or chain for raising or lowering heavy bodies, or it may communicate power to apply a brake. If the lever is desired for use in connection with a wagon-brake, instead of an entire disk a segment only will be necessary.

It will be seen that any degree of tension may be obtained with my device, and adjusted merely by operating the lever.

I have shown a cogged disk in illustrating my invention; but it will apply equally well to frictional gearing, and the detents in that case may be made to bite or press upon a friction bar or disk to be released by the lever, as before stated.

My device will be useful in any position to which a self-locking lever is adapted, and especially on the hand-brakes of railroad-cars.

What I claim is—

1. The locking and releasing device consisting of an arm secured upon a crank or other shaft, and upon the outer end of which are pivoted two spring-pawls for engagement with the face of a disk or segment, in combination with a lever, which in its operation releases the pawl opposing it, as set forth.

2. The combination of the arm C, pawls *b b*, spring D, and cog disk or segment with a lever and a shaft for communicating power, as described.

In testimony that I claim the foregoing I have hereunto set my hand this 21st day of August, 1879.

OLE O. STORLE.

Witnesses:

S. S. STOUT,
EDWIN G. ASMUS.