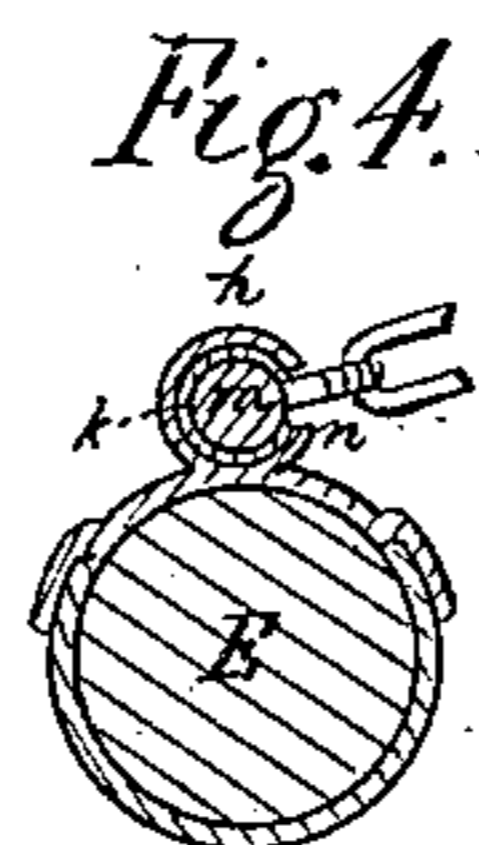
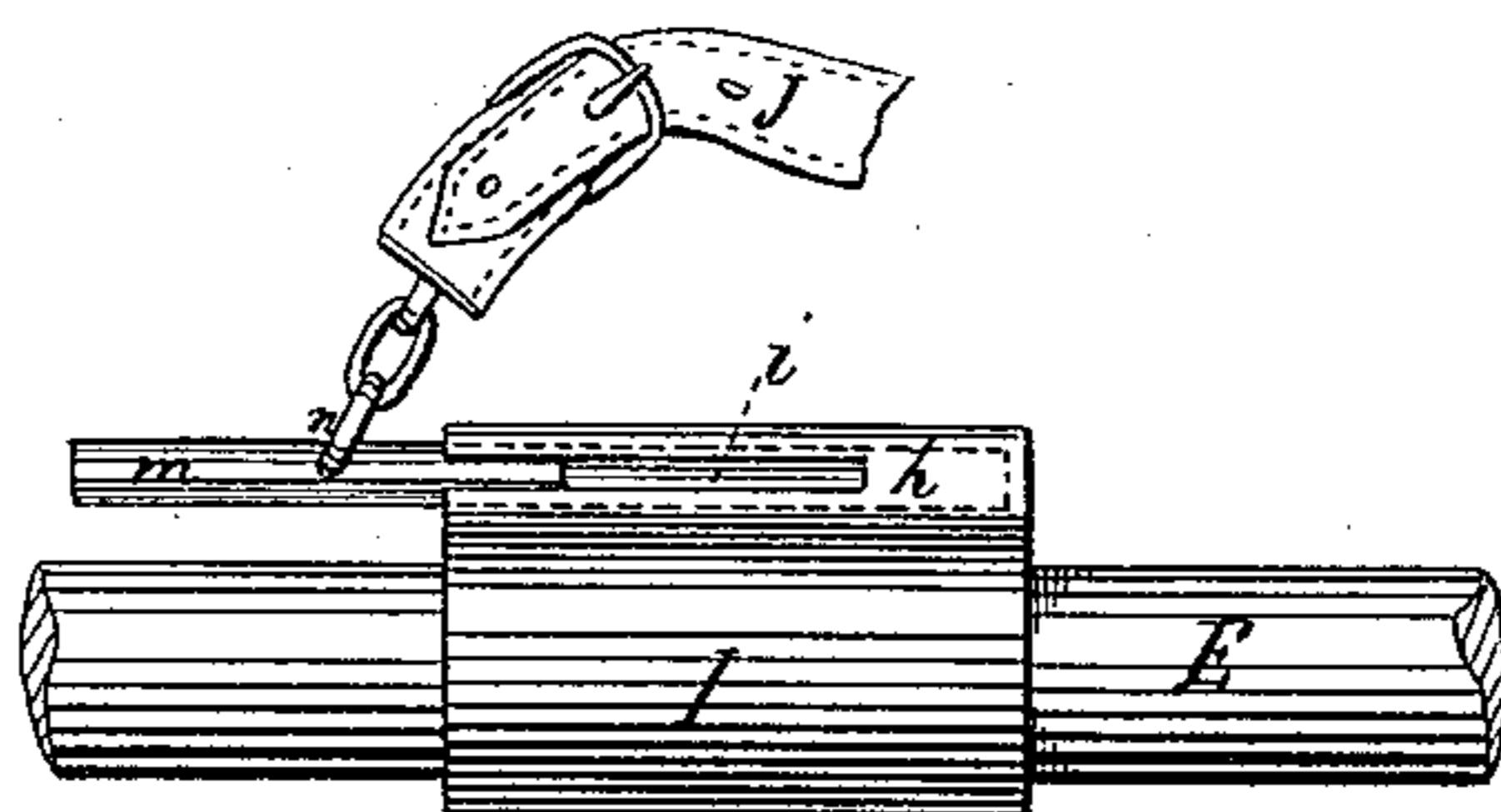
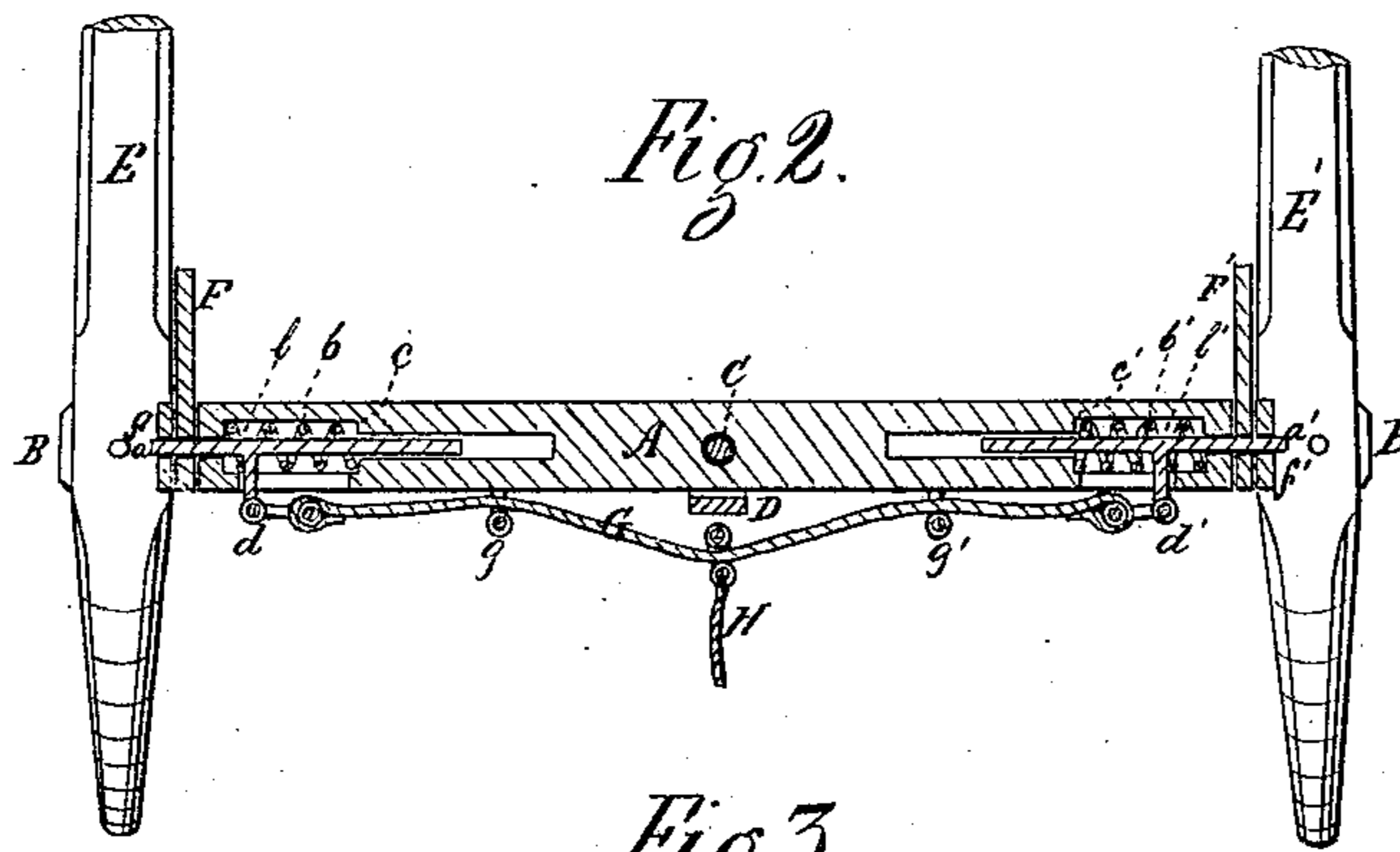
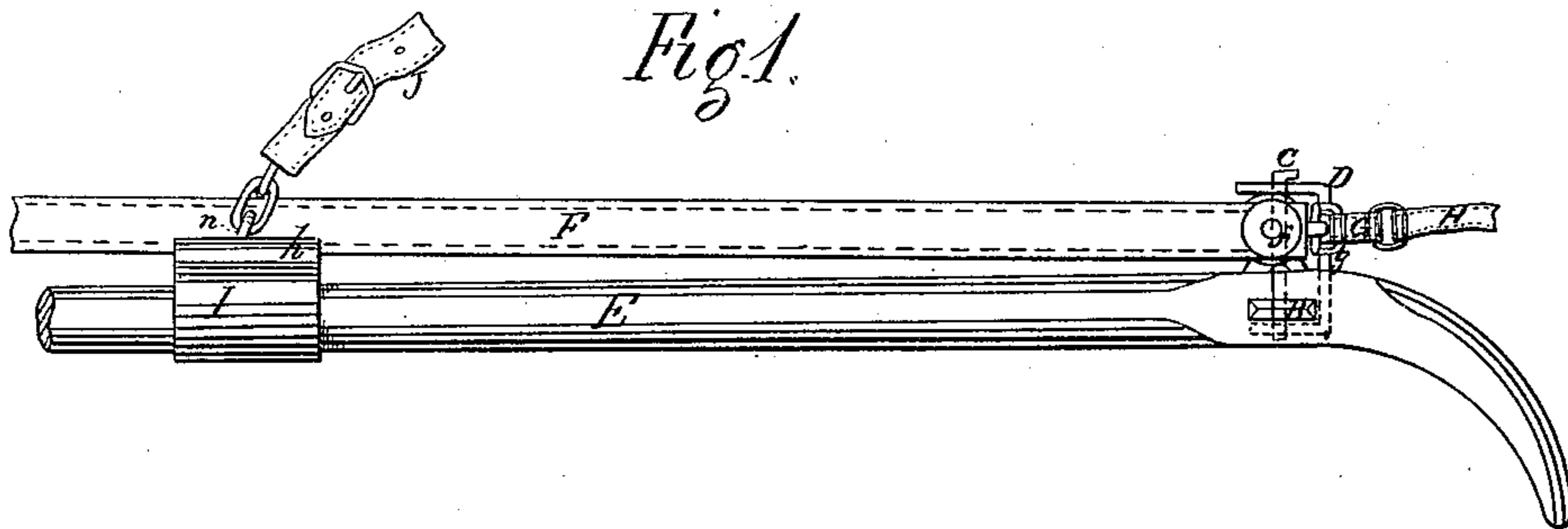


J. A. MAZE.
Horse-Detacher.

No. 164,467.

Patented June 15, 1875.



Witnesses.

B. S. Clark
William Stevenson

Inventor.
Joseph A. Maze
By Atch & Atch
His Attys.

UNITED STATES PATENT OFFICE.

JOSEPH A. MAZE, OF OWINGSVILLE, KENTUCKY.

IMPROVEMENT IN HORSE-DETACHERS.

Specification forming part of Letters Patent No. 164,467, dated June 15, 1875; application filed October 20, 1874.

To all whom it may concern:

Be it known that I, JOSEPH A. MAZE, of Owingsville, county of Bath and State of Kentucky, have invented an Improved Whiffletree, of which the following is a specification, reference being had to the accompanying drawings forming part of the same.

My invention consists in the combination, in a whiffletree and upon the shafts of a vehicle to which a horse is driven, of certain devices, hereinafter particularly described, whereby the horse may be readily and conveniently attached; and upon the necessity arising, as in case the horse becomes unmanageable or runs away, the horse may be instantly liberated by the driver from the whiffletree and the shafts, and be allowed to become entirely detached from the vehicle.

Figure 1 is a side elevation of a whiffletree and shafts embodying my invention. Fig. 2 is a horizontal sectional view of the whiffletree. Fig. 3 is a side elevation of the clamp fixed upon the shafts carrying the socket into which the sliding bolt, to which is secured the holdback-strap, is adjusted. Fig. 4 is a cross-section of the same.

A is the whiffletree, secured to and moving upon the cross-bar B of the shafts by the bolt C and the clamp D. E and E' are the shafts, and F and F' are the traces. The whiffletree A is hollowed out at its ends to form the recesses *l* and *l'*, as shown in Fig. 2, and within these recesses are set the pins *a* and *a'*, having about them the coil-springs *b* and *b'*, which have a bearing at their bases upon shoulders at *c* and *c'*, in the recesses in the ends of the whiffletree, and are compressed and operated by the arms *d* and *d'*, which project from the pins *a* and *a'* through the slotted openings *e* and *e'* in the rear side of the whiffletree, and which form bearings for the upper ends of the coil-springs *b* and *b'*, as shown. When the coil-springs *b* and *b'* are in a state of rest the pins *a* and *a'* project through an orifice in the ends of the whiffletree, as shown, and passing through the traces F and F' fit into openings in the disks *f* *f'*, which are secured upon the ends of the whiffletree by a strap of iron extending from the disks on the upper and lower sides of the whiffletree. To the ends of

the arms *d* and *d'* are attached suitable links, to which is secured the strap G, which passes across the whiffletree on its rear side, and is held in position by the staples *g* and *g'*, which may be provided with anti-friction rollers. At the middle of the strap G is attached the strap or line H by means of a link, which may also be provided with an anti-friction roller, as shown, which strap it is intended should pass into the vehicle within easy reach of the driver. Upon the shafts E and E' are fixed clamps, such as shown at I upon the shaft E, Figs. 1 and 3, and upon the clamp I is arranged the socket *h*, which is closed at its rear end, and is open at its forward end, and has a portion of its wall on the inner side cut away to form the opening shown at *i*, Fig. 3. Into the socket *h* is adjusted the bolt *m*, which is provided with a staple, *n*, that slides in and traverses the opening *i*, to which staple is attached a suitable link, to which the holdback-strap J is secured. A thin tube or lining of rubber, as shown at *k*, Fig. 4, is placed within the socket *h*, as shown, the bolt *m* fitting into and resting upon the said rubber lining.

Now, it is evident that by passing the ends of the traces F F' between the ends of the whiffletree and the disks *f* and *f'*, and allowing the pins *a* and *a'* to pass through the traces and into the disks, the traces will be firmly secured to the whiffletree, and by attaching the holdback-straps to the bolts working in the sockets clamped to the shafts the horse is secured to the shafts, and thus harnessed to the vehicle, the holdback-straps having a perfectly safe bearing on the bolts fitted in the sockets. It is also evident that in case the horse becomes unmanageable or runs away the driver can, by pulling the strap or line H, withdraw the pins *a* and *a'* from the traces, and thus release the horse from the whiffletree, and that the horse as it moves forward will pull the bolts out of the sockets clamped upon the shafts, and will thus be instantly and entirely detached from the vehicle. It is also evident that by means of the rubber lining *k* within the socket *h*, and upon which the bolt *m* rests, all noise or rattling of the parts when the vehicle is in motion is obviated.

The relative positions of the socket *h* and

the bolt *m* may be reversed—that is, the socket may be adjusted upon the holdback-strap J, and the bolt *m* fixed upon the shaft E.

I am aware that a whiffletree has been constructed with a pin having a coil-spring about it, working in a recess in the whiffletree, and operated by a strap attached to the butt or inner end of the pin, which passes out through a diagonal or oblique opening in the body of the whiffletree. I am also aware the aperture through which the operating cord or strap passes has been provided with a thimble, said thimble having an elbow acting to strengthen the said aperture; but by these means a large amount of friction upon the operating-strap is occasioned, and the consequent wear of the strap is very great, and a continually-increasing weakening of an important part of the mechanism is the result. In my invention, as shown, this friction and consequent weakening is entirely obviated, as the pin *a* is operated from its forward or outer end by the small arm *d*, which bears upon the coil-spring *b*, and to which the strap G is attached by means of an anti-friction link, as shown. The

strap G is also preserved from wear and strain by means of the staples *g* and *g'*, which are provided with anti-friction rollers, as shown, and through which the strap G passes, and also by means of anti-friction rollers at its connection with the strap H, as shown. By this means great firmness and strength of the parts and a minimum liability to breaking of the parts is secured.

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

1. The combination, in a whiffletree, of the recess *l*, the disk *f*, the pin *a*, the coil-spring *b*, the arm *d*, the strap G, the staples *g* and *g'*, anti-friction rollers, strap H, having anti-friction connection with the strap G, all substantially as set forth.

2. The combination of the shaft E, the clamp I, the socket *h*, the bolt *m*, with its staple *n*, and the holdback-strap J, all substantially as and for the purpose set forth.

JOSEPH A. MAZE.

In the presence of—

REUBEN GUDGELL,
E. V. BROTHER.