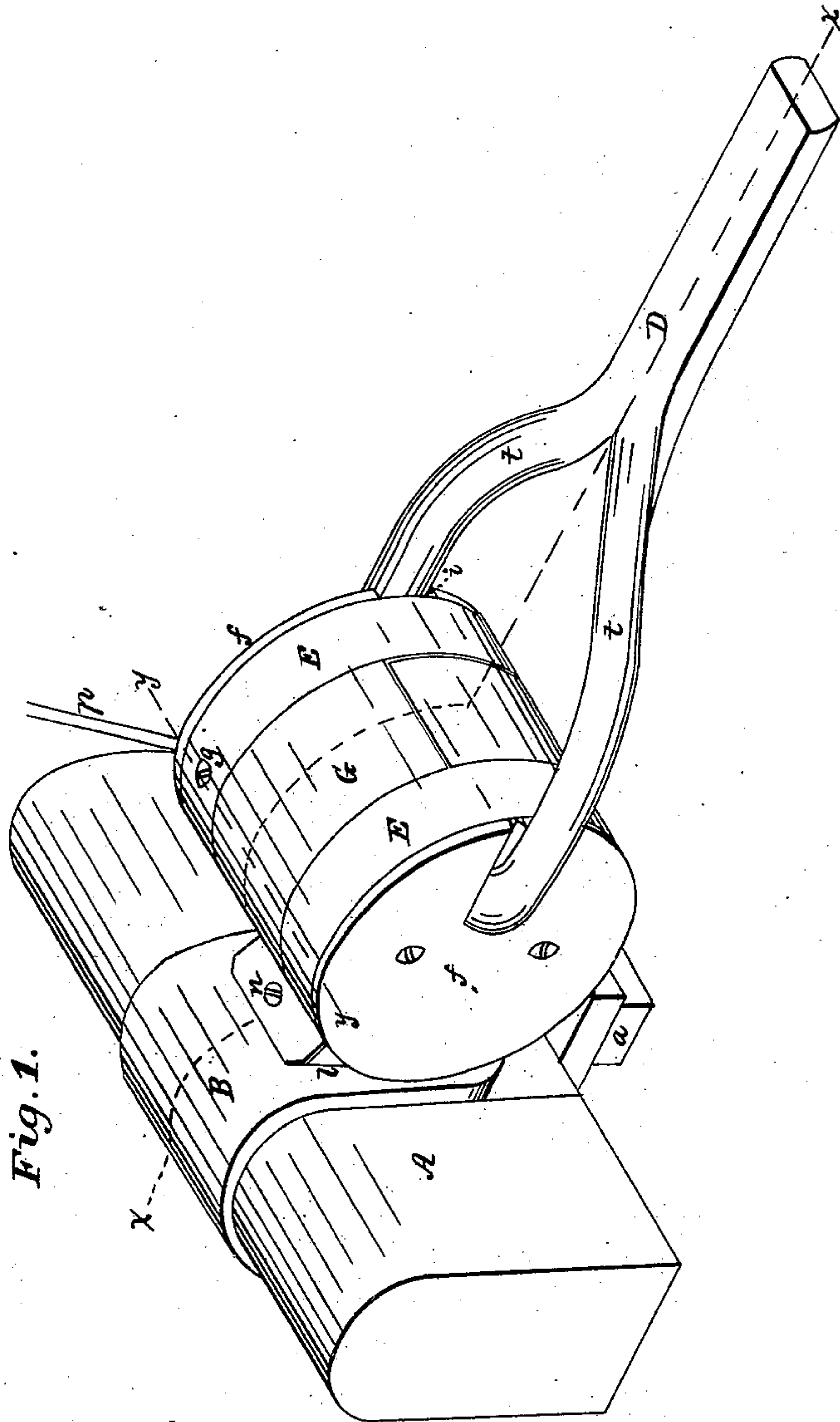


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Thill Coupling.

No. 87,047.

Patented Feb. 16, 1869.



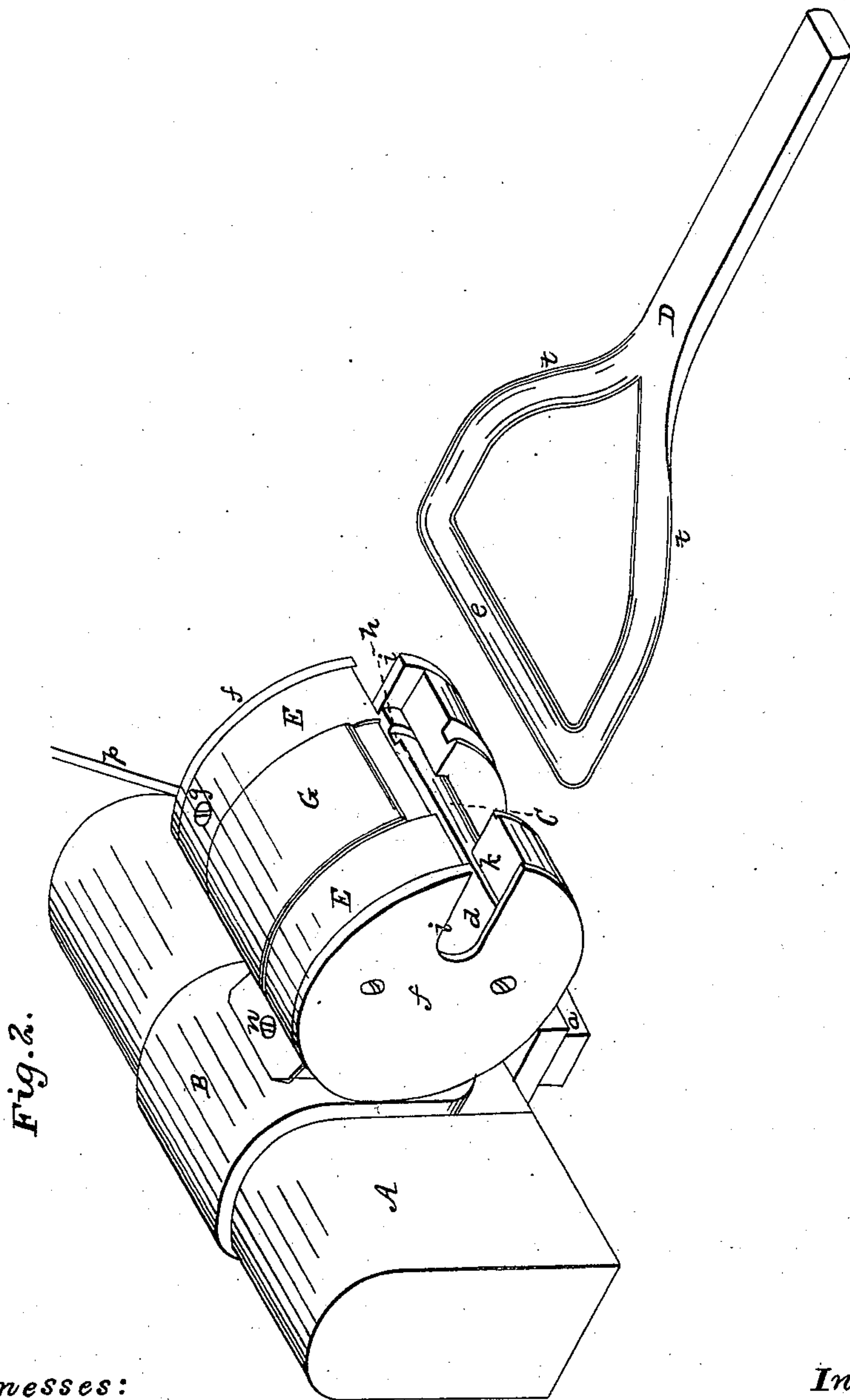
Witnesses:  
H. J. Cambridge  
D. E. Batcheller

Inventor:  
Manley Howe  
per his Attorney,  
Teachmasher & Stearns

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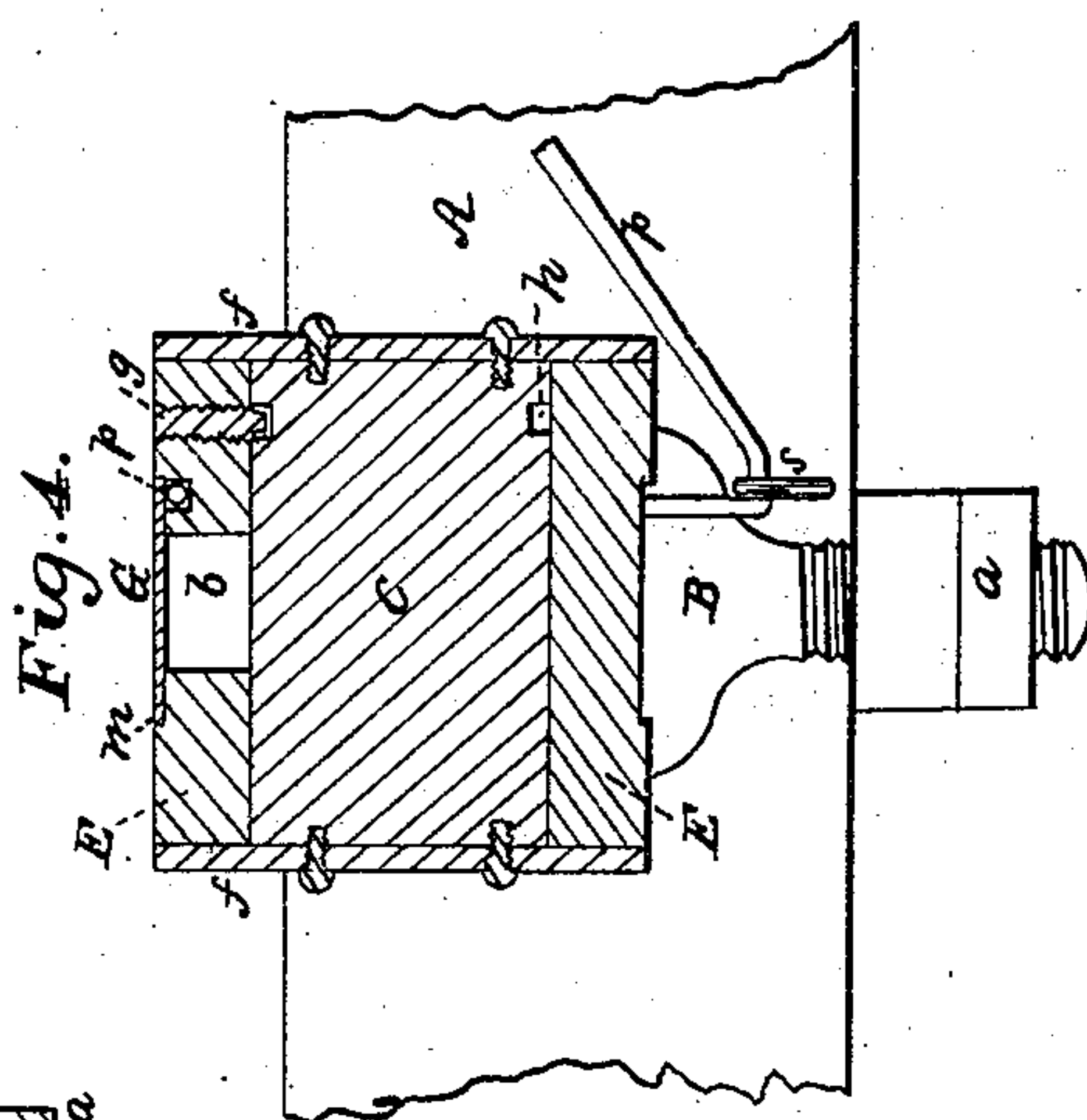
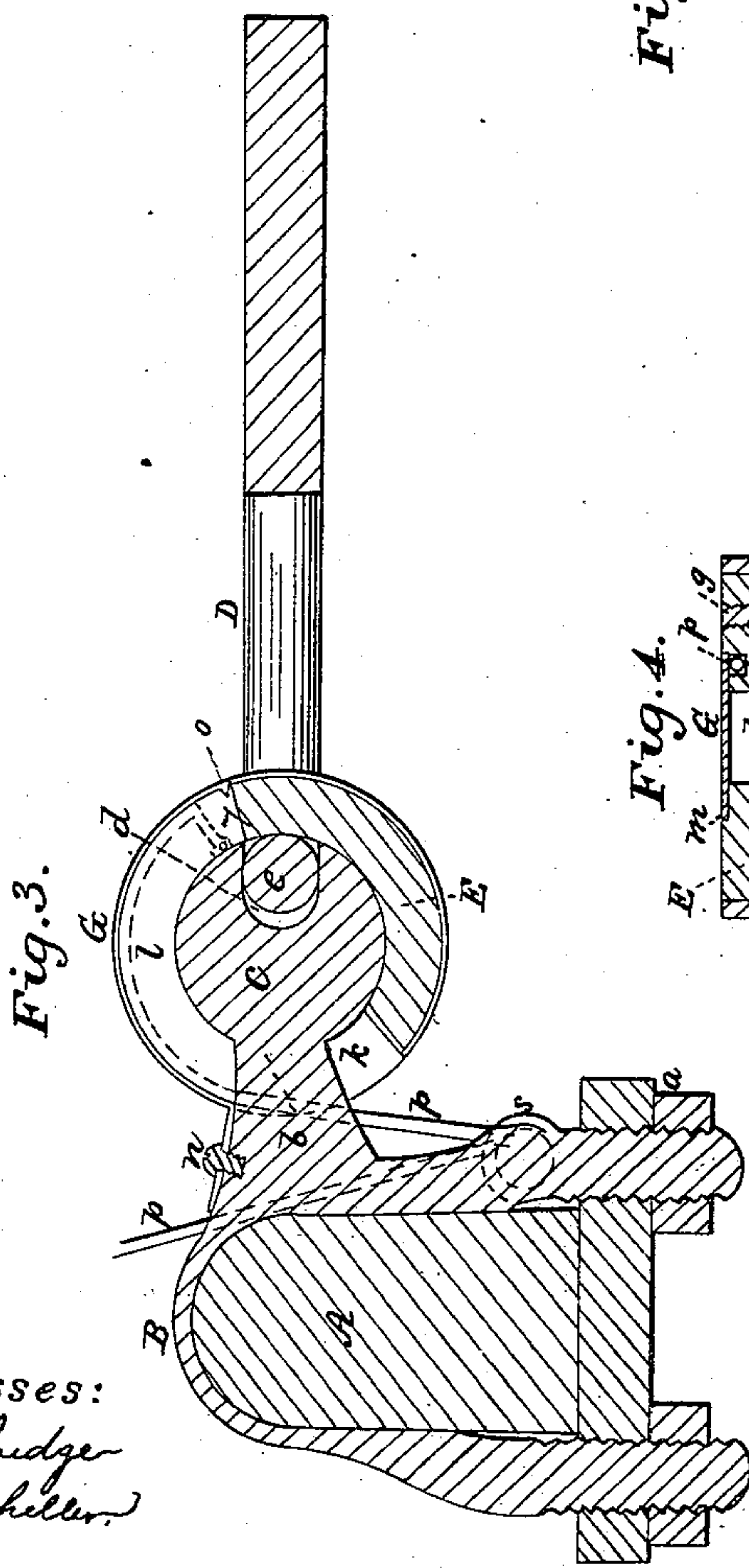
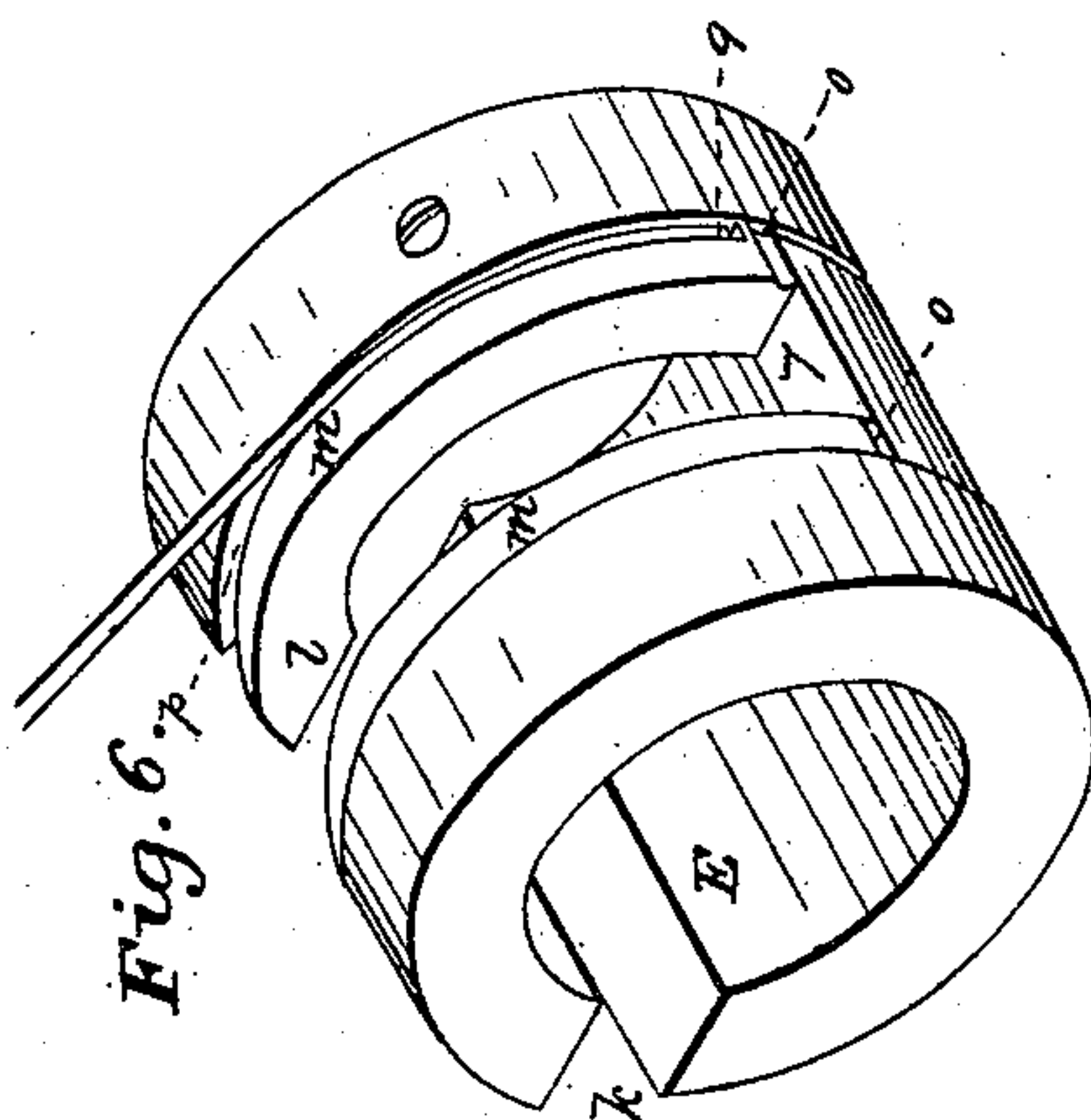
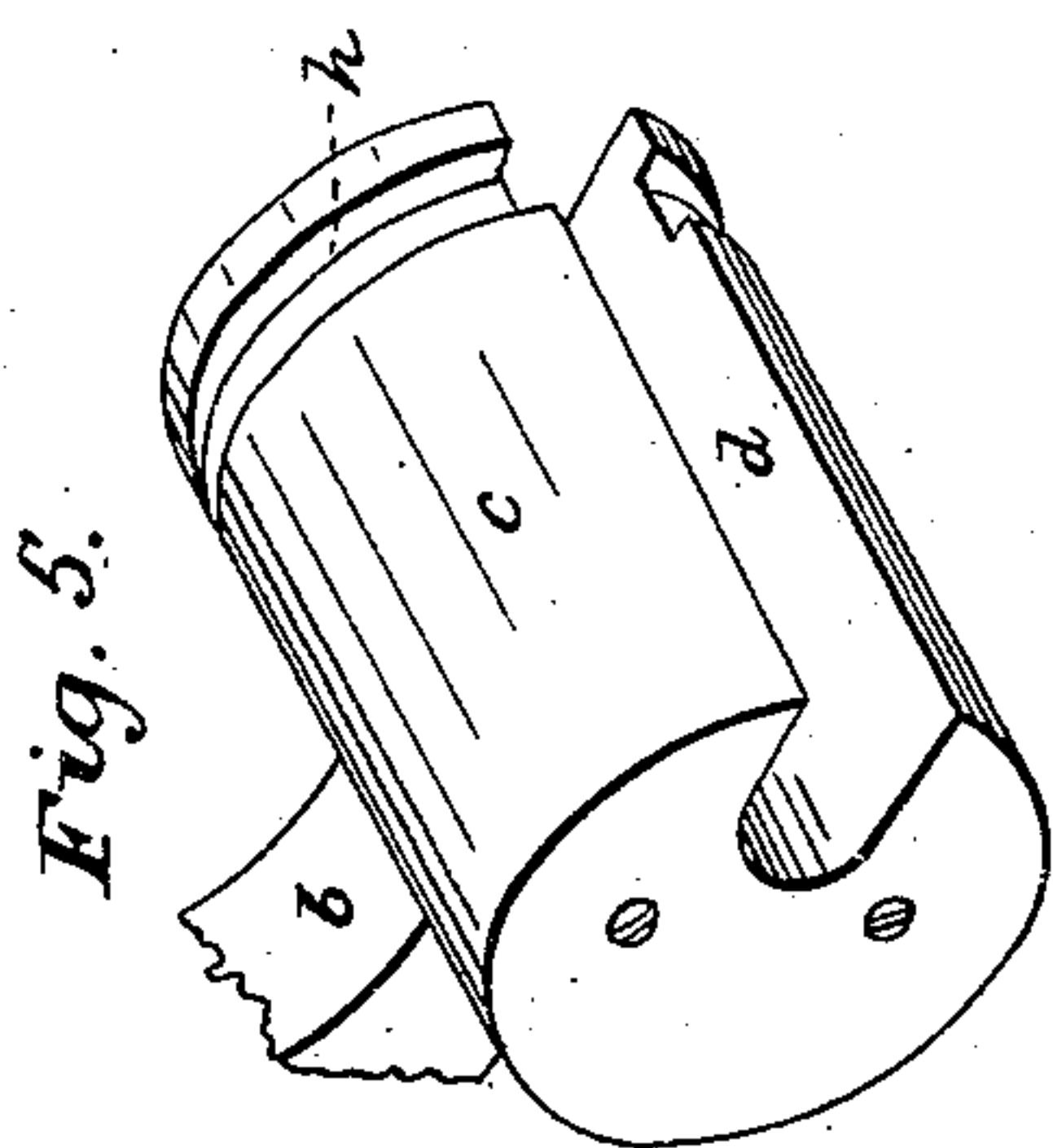
Witnesses:  
H. J. Cambridge  
L. E. Ratchell

Inventor:  
Wm. H. Howe  
By his Attorneys  
Tuckermacher & Stearns

M. HOWE.  
Thill Coupling.

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Witnesses:  
H. J. Cambridge  
L. E. Batcheller

Inventor:  
Manley Howe  
for his Attorney &  
Testamaking Clerks



# United States Patent Office.

MANLEY HOWE, OF BOSTON, MASSACHUSETTS.

Letters Patent No. 87,047, dated February 16, 1869.

## IMPROVED THILL-COUPLING.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, MANLEY HOWE, of Boston, in the county of Suffolk, and State of Massachusetts, have invented an Improved Coupling for Attaching and Detaching Shafts and Poles to and from Vehicles, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a perspective view of my improved coupling, with the thill-iron in place.

Figure 2 is a perspective view of the same, representing the position of the parts when the thill-iron is released.

Figure 3 is a section on the line *x x* of fig. 1.

Figure 4 is a section on the line *y y* of fig. 1.

Figures 5 and 6, details.

My invention has for its object to provide a ready and convenient means whereby the horse or horses, attached to a vehicle, may be instantly released therefrom by the driver, in case of accident; and

My invention consists in an improved coupling, in which a loop, at the extremity of the thill-iron, is confined between a cylindrical block and a sleeve revolving thereon, provided with an opening extending entirely across it longitudinally, the revolution of this sleeve, by a cord or other connection accessible to the driver, serving to bring its longitudinal opening into a position opposite to the loop of the thill-iron, which is then free to be withdrawn as required.

To enable others skilled in the art to understand and use my invention, I will proceed to describe the manner in which I have carried it out.

In the said drawings—

A represents the axle of a carriage, to which the band, or clip B, is secured in the ordinary manner, by screw-nuts *a*.

From the front side of the clip B, and forged in one piece therewith, projects an arm, *b*, carrying, at its outer extremity, a cylindrical block, C, provided on its front side with a longitudinal groove, *d*, for the reception of the straight portion, *e*, of a loop, formed at the end of the thill-iron D, which is confined in place within the groove by means of a cylindrical sleeve, E, which is fitted over the block C, so as to turn freely thereon, and is held in place by circular plates *f*, secured to the ends of the block C, and also by a screw, *g*, the end of which projects into a groove, *h*, fig. 5, in the said block.

The plates *f* are provided with notches *i*, so as to allow the portion, *e*, of the thill-iron, to enter the groove *d* in the block C. These plates *f*, however, are not required to hold the sleeve E in place when the screw *g* is used, and *vice versa*; but I prefer to use the plates, as they give a finished appearance to the coupling, and prevent the entrance of dirt.

*k* is a slot or opening, extending longitudinally across

the sleeve E; and communicating with this opening, and at right angles thereto, is a slot, *l*, through which projects the arm *b*. This slot *l* permits the sleeve E to be revolved around the block C, until the end, 7, of the slot comes into contact with the arm *b*, when the opening *k*, in the sleeve E, will be opposite to the groove *d*, in the block C, and the portion *e* of the thill-iron, being no longer held by the sleeve, is free to be withdrawn, as seen in fig. 2.

The sleeve E is held in the position seen in figs. 1 and 3 by a flat spring, G, which lies in a shallow groove, *m*, formed around the sleeve, and is flush with its surface.

This spring G is attached at one end by a screw, *n*, to the arm *b*, and extends partially around the sleeve E, so as to cover the slot *l*, and exclude the dirt and dust therefrom, the outer end of the spring being turned down slightly so as to fit into a V-shaped groove *o*, thus forming a catch, which, in connection with the friction of the spring upon the sleeve E, serves to prevent the latter from being accidentally revolved by the jar or motion of the vehicle.

P is a cord or wire, which is attached to the sleeve E, at *q*, and passes through a groove, *r*, beneath the spring G, to an eye or pulley, *s*, from which it is led into a position accessible to the driver of the vehicle, and thus, in the event of the horse or horses becoming unmanageable, it is merely necessary to pull the cord or wire *p*, which will raise the end of the spring G out of the V-shaped groove *o*, and revolves the sleeve E, until its opening *k* is brought opposite the portion *e* of the thill-iron, when the latter is free to be withdrawn, and the horse may thus be instantly disengaged from the vehicle, as required, the wires of both couplings being led to a central point and connected together, so that both may be disconnected simultaneously by operating a single cord or wire extending up into the vehicle.

The portion *e*, of the thill-iron D, may be suitably packed, in order to prevent it from rattling within the groove *d*, and the sides *t* of the loop are inclined, so as to prevent them from catching against any portion of the carriage, when disconnected from the coupling.

It is evident that when the thill-iron is locked securely in place, by the revolution of the sleeve E, there is no liability of its becoming disconnected accidentally by the motion of the vehicle, as the spring G serves to prevent the sleeve from being revolved except by the cord or wire *p*, and this revolution of the sleeve E is much more easily effected against the resistance of the draught, than the withdrawal of a pin or pins in some of the devices heretofore used for releasing horses from vehicles.

The above-described coupling may be used for attaching either thills or poles to vehicles, as may be desired; and a strap or other device connected with the



harness may be used for supporting the ends of the thills, and preventing them, when disconnected from the vehicle, from striking against the horse's heels.

*Claim.*

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

The within-described coupling, consisting of the cy-

lindrical block C, with its groove *d*, and the revolving sleeve E, with its opening *k*, and spring G, constructed substantially as described, and operating in connection with the thill-iron D, as set forth.

MANLEY HOWE.

Witnesses:

P. E. TESCHEMACHER,  
W. J. CAMBRIDGE.