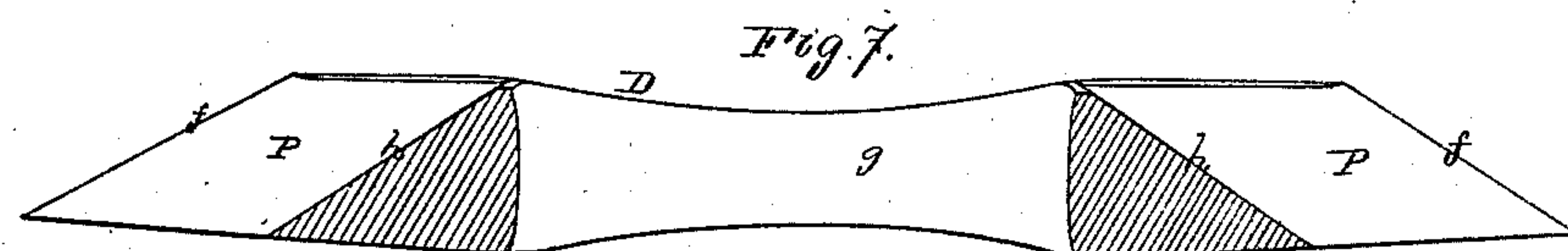
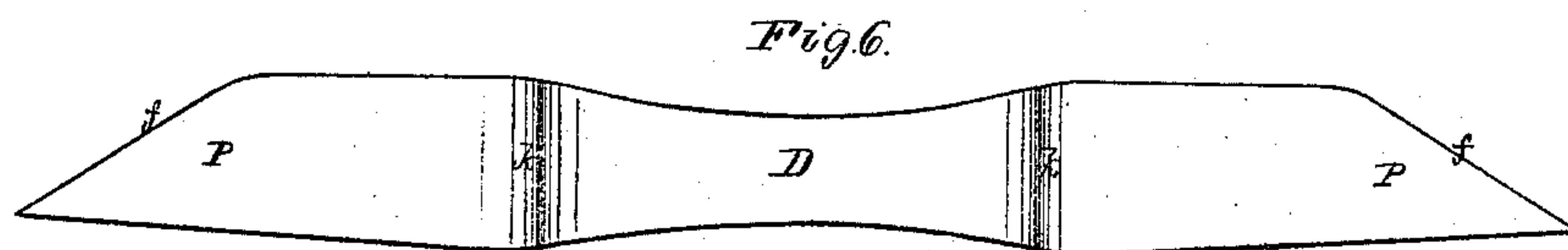
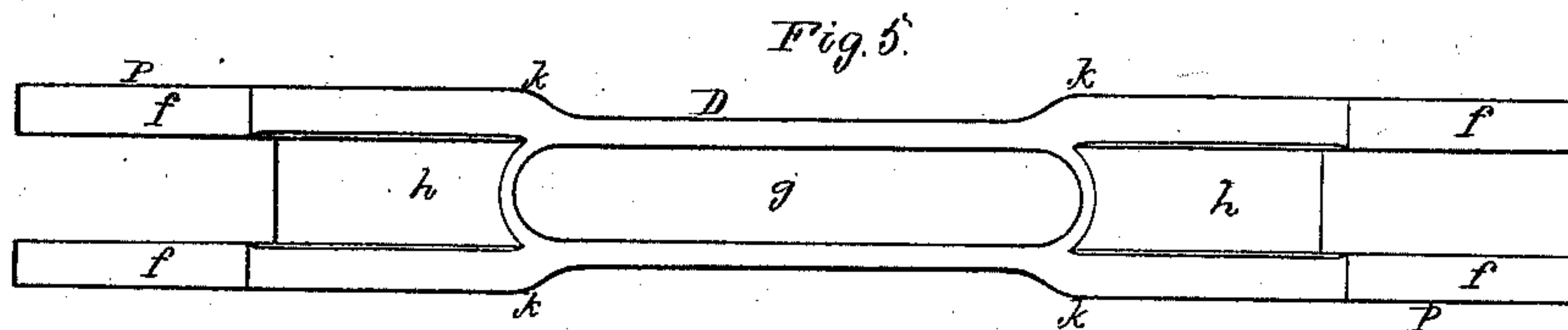
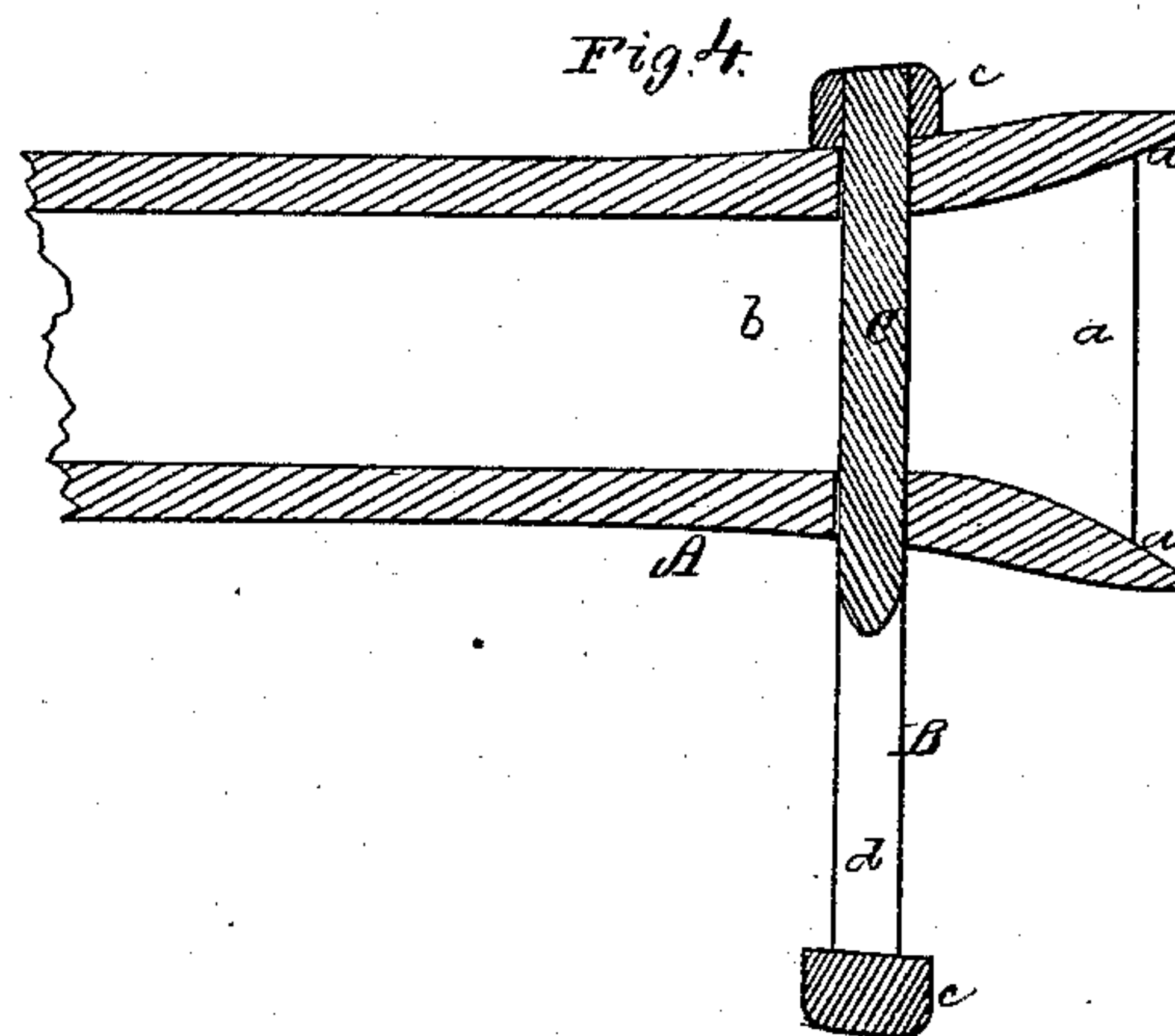
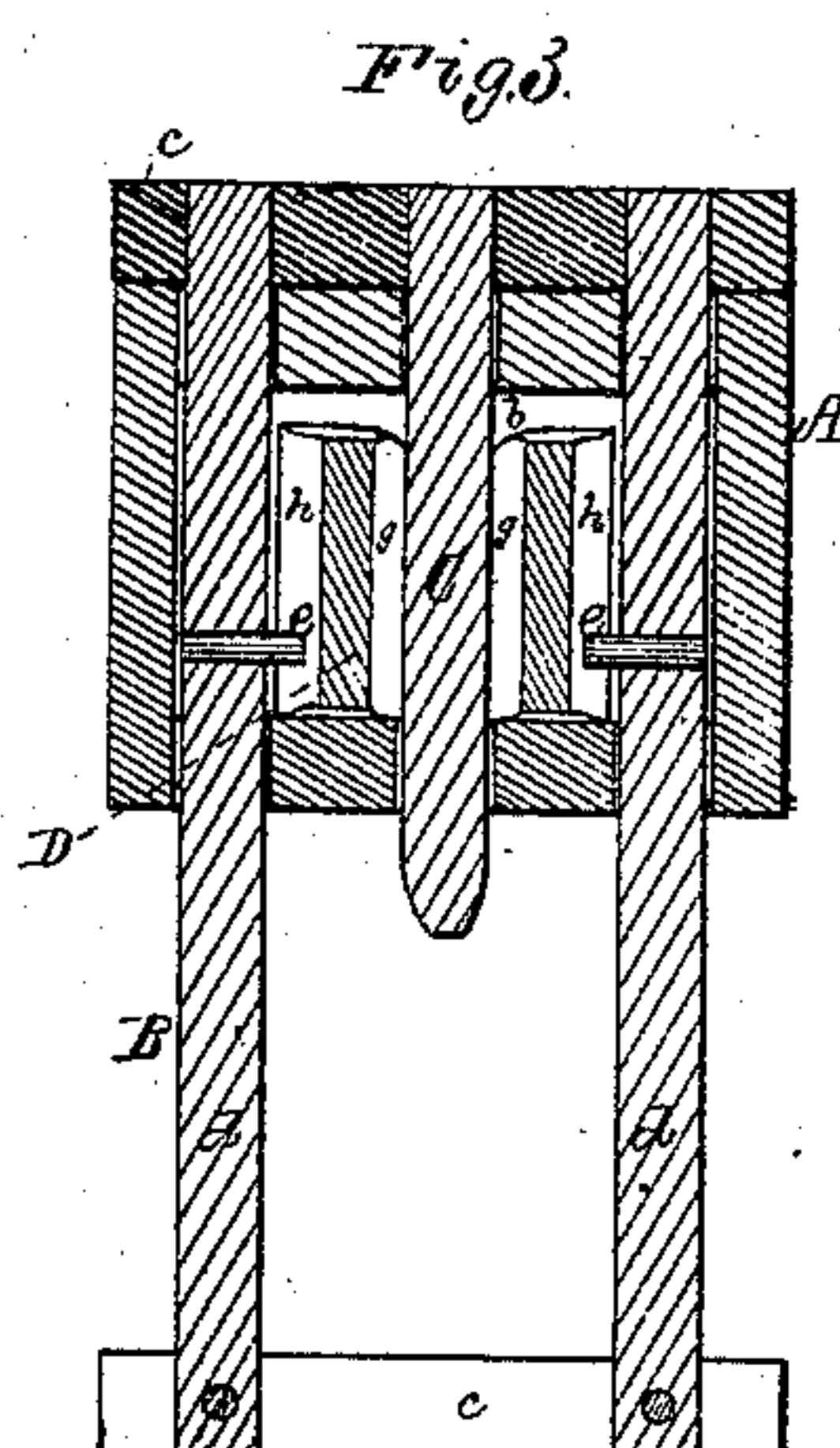
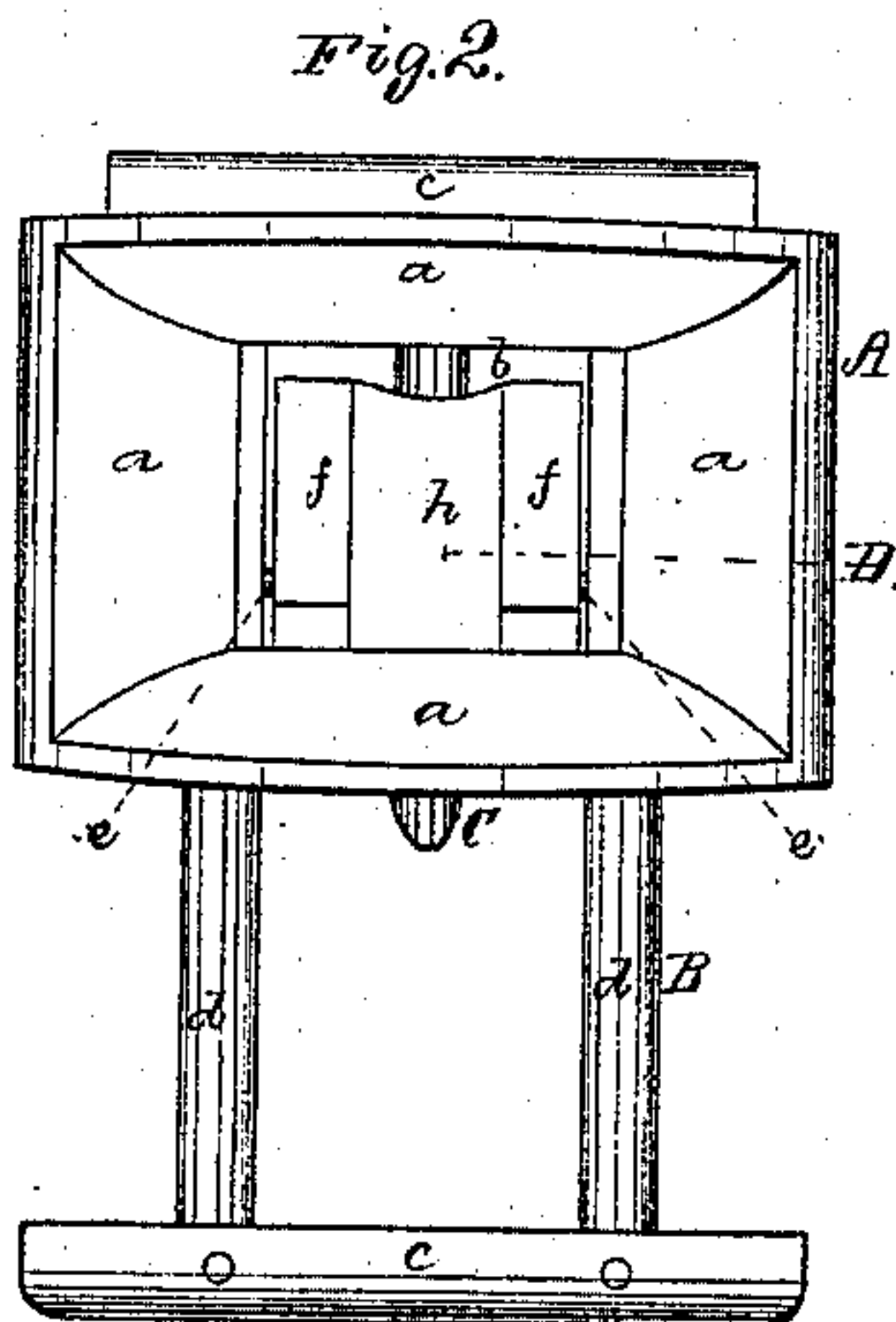
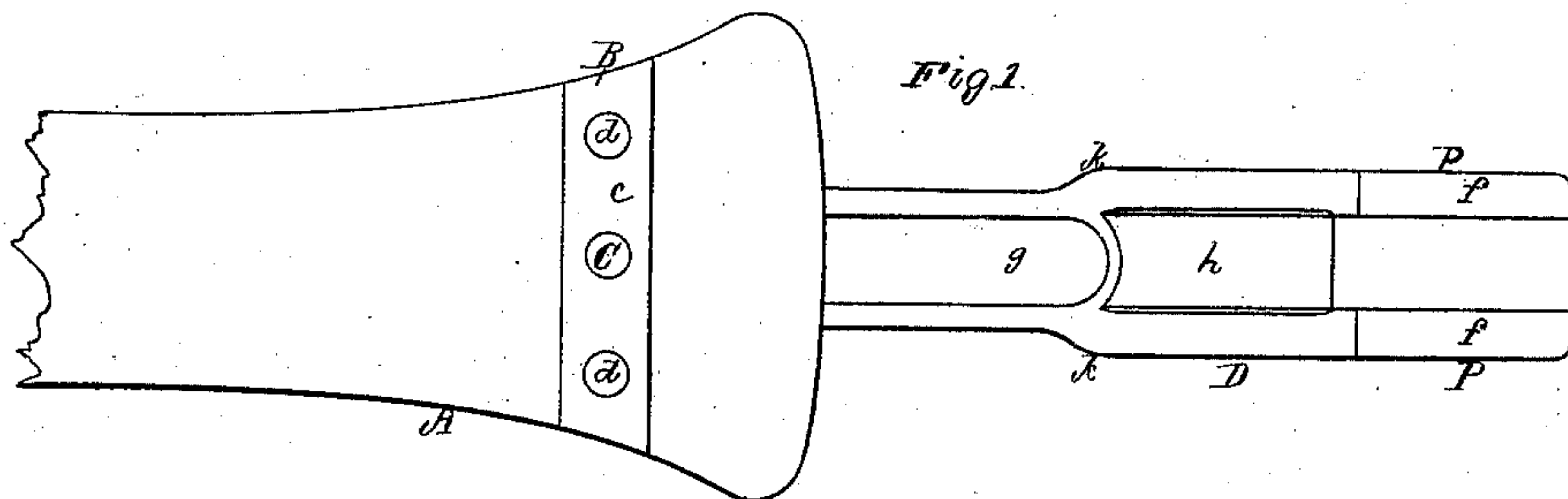


M. FERREN.
Car-Couplings.

No. 143,231.

Patented September 30, 1873.



Witnesses.

S. W. Piper

H. N. Miller

Moses Ferren.

by his attorney

R. H. Eddy

UNITED STATES PATENT OFFICE.

MOSES FERREN, OF FREEDOM, NEW HAMPSHIRE.

IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. **143,231**, dated September 30, 1873; application filed April 11, 1873.

To all whom it may concern:

Be it known that I, MOSES FERREN, of Freedom, of the county of Carroll and State of New Hampshire, have invented a new and useful Improvement in Railway-Carriage Couplings; and do hereby declare the same to be fully described in the following specification and represented in the accompanying drawings, of which—

Figure 1 denotes a top view, Fig. 2 a front-end view; Fig. 3 a transverse section, and Fig. 4 a longitudinal section, of the draw-bar and coupling portion without the link. Fig. 5 is a top view, Fig. 6 a side elevation, and Fig. 7 a longitudinal section, of the link.

My improvement relates to the construction of the coupling-link, and to appliances combined with the draw-bar, to operate with such link in manner as hereinafter explained.

The draw-bar A has a trumpet-mouth, *a*, to its link-chamber *b*. A frame or yoke, B, composed of two horizontal bars, *c c*, and two vertical ones, *d d*, arranged as shown, is applied to the draw-bar, and disposed with its mouth in manner as represented, the bars *c c* being free to slide vertically in the bar. There extends down from the middle of the upper cross-bar of the yoke B a link-pin, C, which, when the yoke is at its lowest position, goes through the draw-bar. Furthermore, there projects from the bars *c c* two studs, *e e*, they being arranged as represented. The link D is furcated at its opposite ends, and is slotted between the furcations. Furthermore, each prong *p* of each furcation is made wedge-shaped or inclined, as shown at *f*, and between each pair of prongs, and in advance of the slot *g*, is an inclined plane, *h*, all being formed and arranged in manner as represented.

On forcing the link endwise into the mouth and chamber of the draw-bar, the wedged

prongs *p*, by acting against the studs *e e*, will force upward the yoke, so as to cause it to lift the pin C far enough for the intermediate inclined plane *h* to pass under its foot. The link continuing to advance, the inclined plane *h* between such prongs, by its action against the pin, will force it and the yoke farther upward until the plane may pass beyond the pin, which taking place, the yoke and pin will be set free, and will fall downward, so as to carry the pin through the slot of the link, and thereby couple the link with the draw-bar.

To uncouple the two we have only to raise the yoke up to its highest position and draw the link out of the draw-bar.

Instead of the studs *e e*, flanges projecting from the yoke may be used.

Furthermore, the link, near each of the extremities of its slot, is formed with shoulders *k k*, arranged as shown. Two of them, when the link is coupled with the draw-bar, project directly in rear of the studs *e e*, and, with them, aid in holding the link in engagement with the bar. Should the link-pin accidentally become broken, these shoulders and the studs, or the equivalents of the latter, will serve as a means of keeping the link in engagement with the draw-bar.

I claim as my invention—

1. The draw-bar provided with the yoke B, link-pin C, and studs *e e*, and the link having the slot *g*, the wedged prongs *p*, and the inclined planes *h*, all arranged substantially in manner and to operate as specified.

2. The combination of the yoke B, having studs *e e*, with the link D, having shoulders *k k*, as described, and for the purpose set forth.

MOSES FERREN.

Witnesses:

R. H. EDDY,
J. R. SNOW.