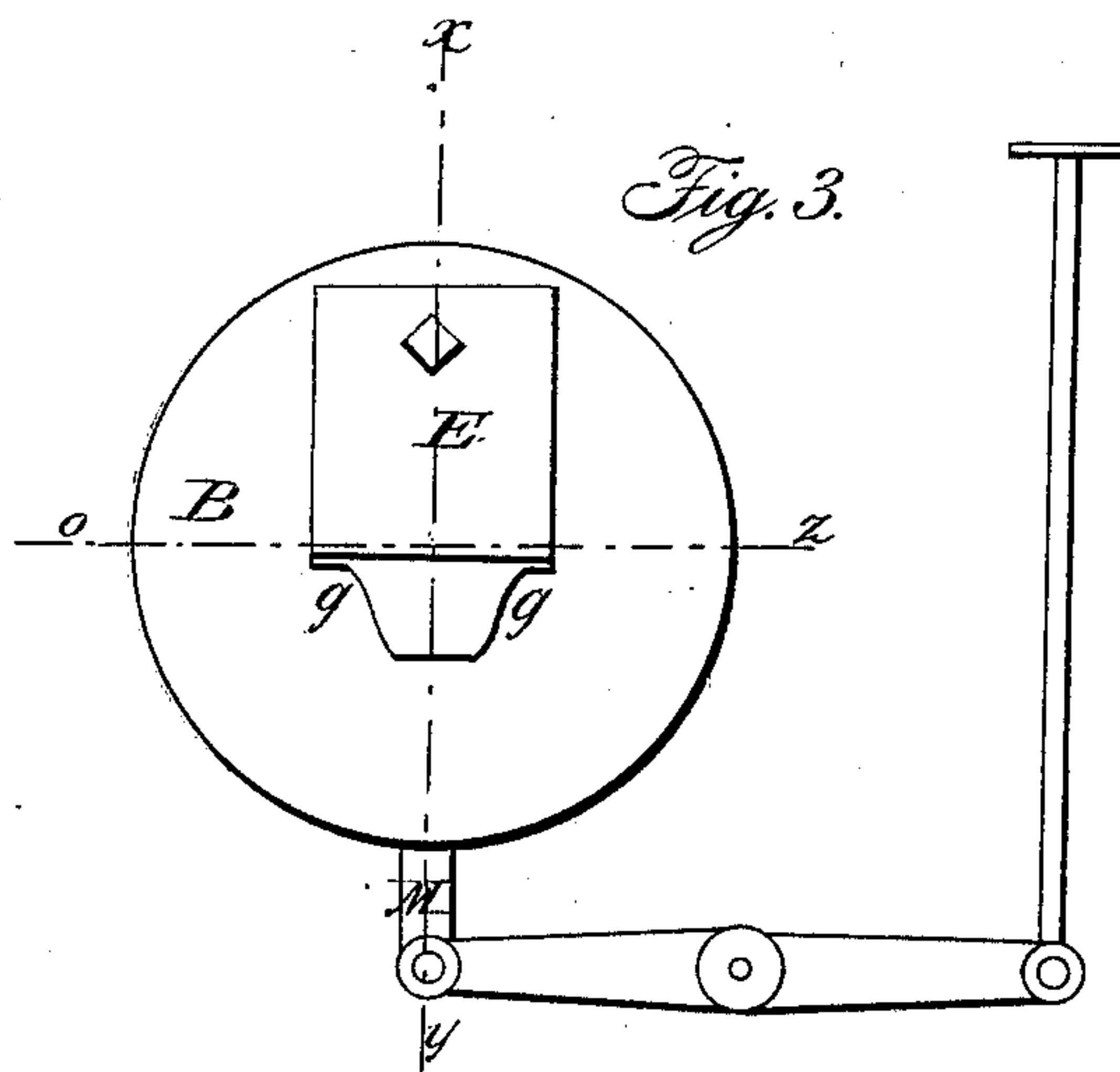
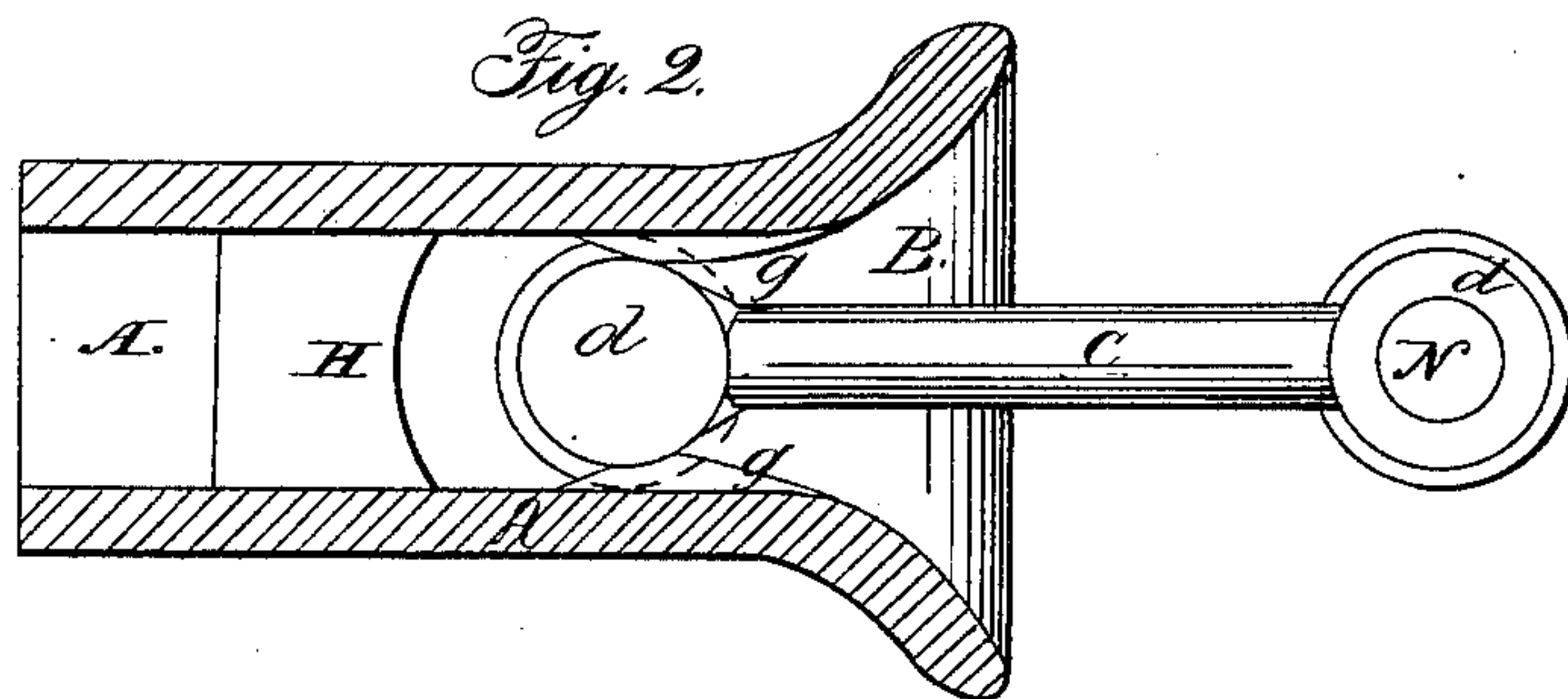
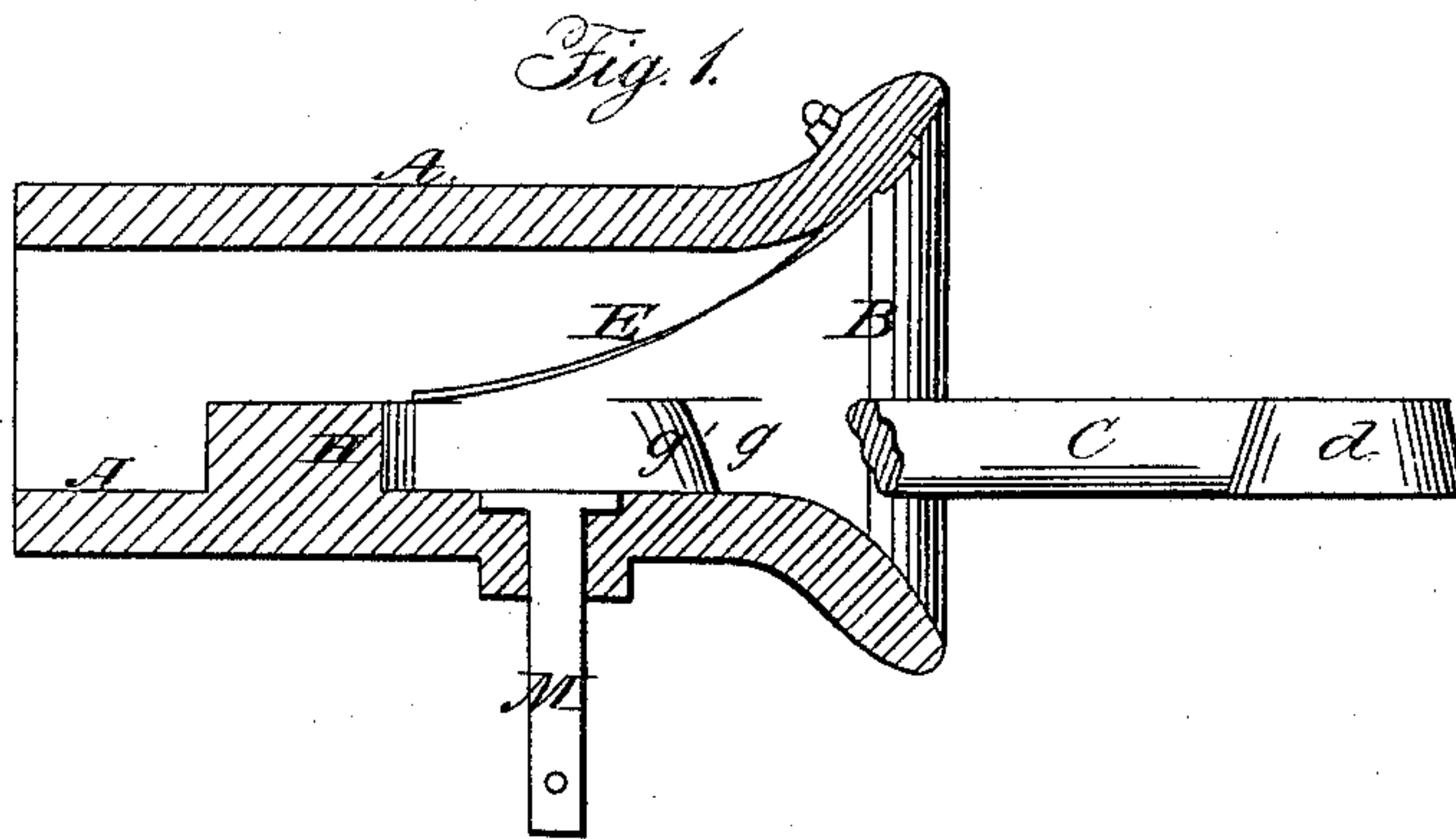


# RIDINGS & ROBERTS.

## Car Coupling.

No. 67,677.

Patented Aug. 13, 1867.



**Witnesses:**

Joseph Hyde  
A. M. G. W.

**Inventor:**

John Ridings  
John O. Roberts.

# United States Patent Office.

JOHN RIDINGS AND JOHN O. ROBERTS, OF NEWCASTLE, DELAWARE.

*Letters Patent No. 67,677, dated August 13, 1867.*

## IMPROVED CAR-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 we, JOHN RIDINGS and JOHN O. ROBERTS, both of the city and county of Newcastle, State of Delaware, have invented a new and useful "Car-Coupling;" and we do hereby declare the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of our invention consists in making a car-coupling which shall be self-coupling without assistance from the brakeman, which shall also be easily uncoupled by simply pressing on a rod or lever, and which shall also uncouple itself if the car leaves the track.

Figure 1 is a section through  $xy$ .

Figure 2 is a section through  $oz$ .

Figure 3 is an end view, with liberating-lever attached.

The casting A is made with an open bell-mouth, B, and it has a spring, E, bolted to the top flange. C is the coupling-bar, enlarged at each end to a swell marked  $d$ . This circular end is smaller at its upper side, in diameter, than it is at the bottom. (See  $d$ , fig. 1.) The bell-mouth B has on each side a lug,  $g$ , which is gently inclined or sloping on its exterior, the interior being undercut, as shown at  $g'$ , to fit the swell  $d$ . The casting or box A is cast with a stop, H, to confine the swell  $d$  within certain limits, and yet allow of considerable play endwise to the bar C. When the cars are coupled and the pull is upon the bar C, it lies in the depression between the lugs  $g$ , and the swell  $d$  fits snugly into the recess behind at  $g'$ . A releasing-pin, M, is inserted in the bottom of the casting A, by which the bar C can be raised, and so liberated from the box as soon as the pull comes upon it. This pin may be operated by a lever and rod, (see fig. 3,) going to the platform or the roof of a car, so as to be easily controlled by the brakeman. One end of the bar C may have a hole in it, as shown at N, so that this coupling may be used in connection with those now in common use, where they happen to come together. The box A may be cast with a round hole in the rear end, so as to be attached to the car, by means of a pin and cotter, and take the place exactly of those now in use.

Its operation is this: To couple the cars let the bar C remain in one of the castings A. As the cars come together the swell  $d$  enters the bell-mouth B, and the inclined lugs  $g$  force the coupling-bar to rise over them and fall into position behind  $g'$ . The spring E and the slanting face of the swell  $d$  retain the bar in position. To separate the cars the releaser M is raised so as to lift the swell above the lugs  $g$ , the bar C can then be drawn out. If one car should run off the track, the bar C impinging against the inclines of  $g$ , and against the bell-mouth B, will be raised above the lugs  $g$ , and thus permit the two cars to be disconnected. Thus the three qualifications described at the commencement of the specification are all combined in one simple device.

We do not claim the spring E for holding down the bar C, nor a draw-bar having a hook on its under side, hooking over an independent pin, as our invention consists essentially in the shape of the ends of the draw-bar, and the retaining of the draw-bar in the depression formed between the two inclined lugs  $g$ , which are formed upon the bull-head casting A.

What we claim as our invention, and desire to secure by Letters Patent, is—

The combination and arrangement of the box A, spring E, coupling-bar C, and releaser M, when constructed substantially as described.

JOHN RIDINGS,  
JOHN O. ROBERTS.

Witnesses:

JOSEPH HYDE,  
ALEXANDER MCGEE.