

(No Model.)

R. J. VOELKER.
FIRE TRUCK.

No. 598,453.

Patented Feb. 1, 1898.

Fig. 1.

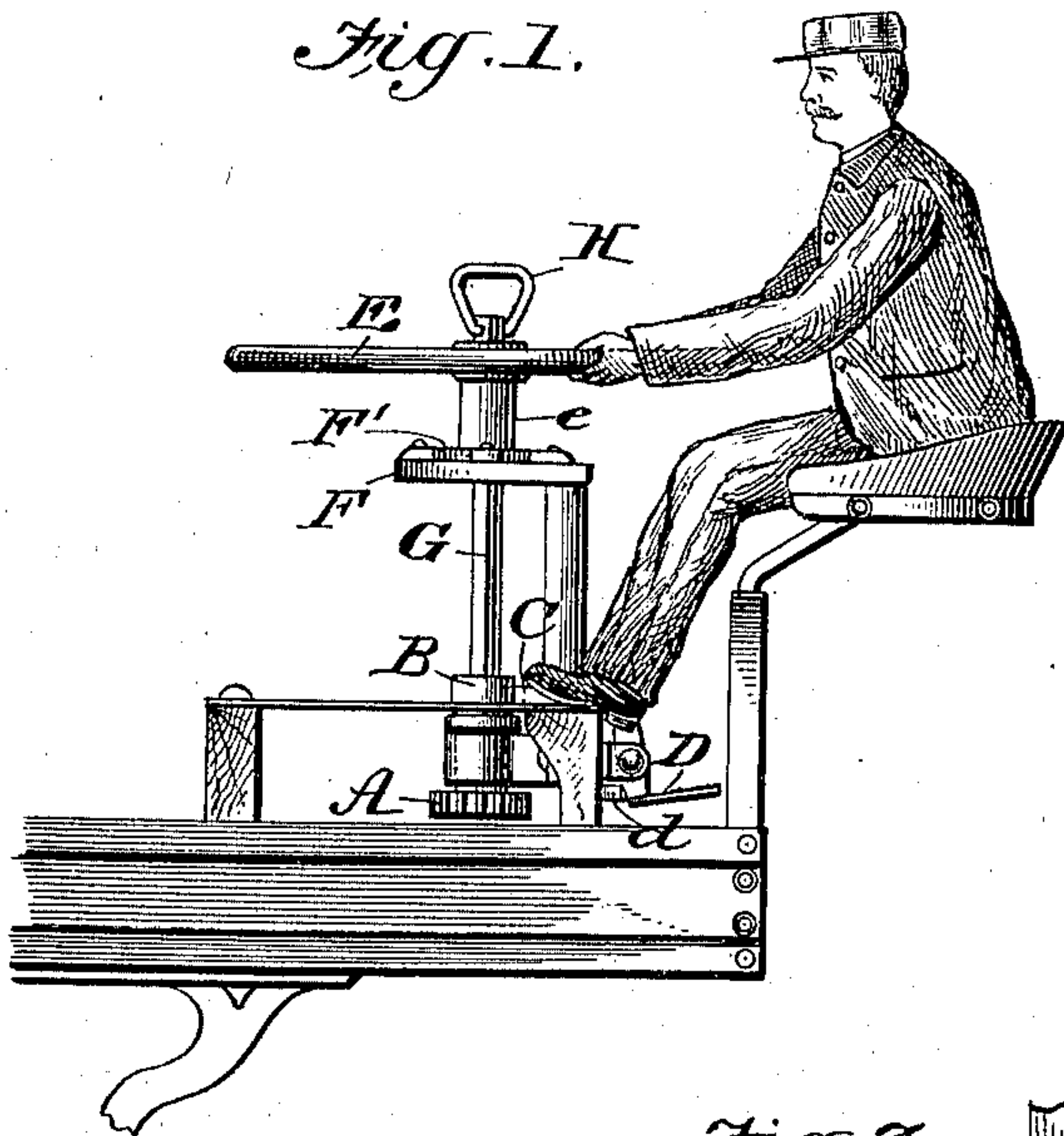


Fig. 2.

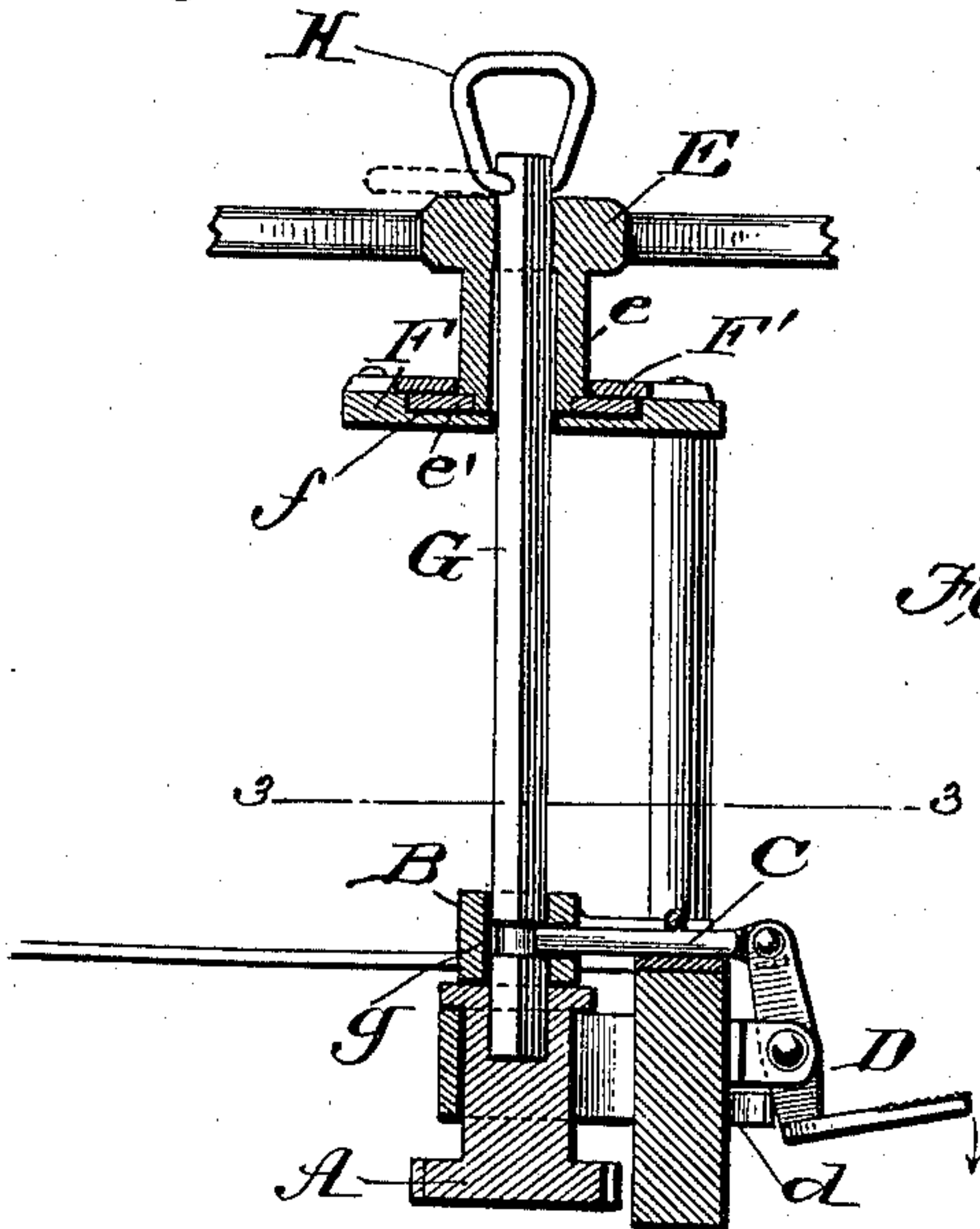


Fig. 3.

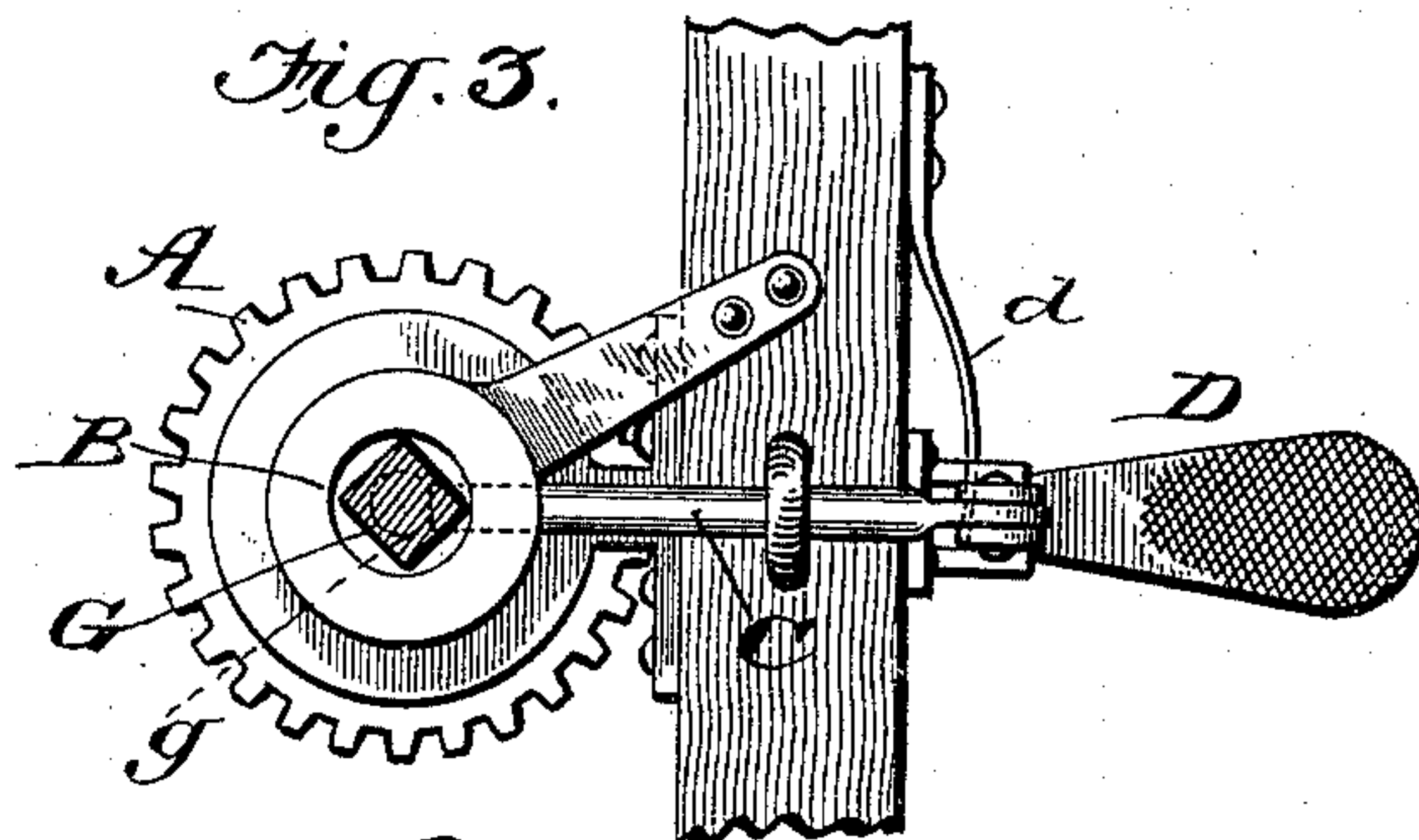


Fig. 4.

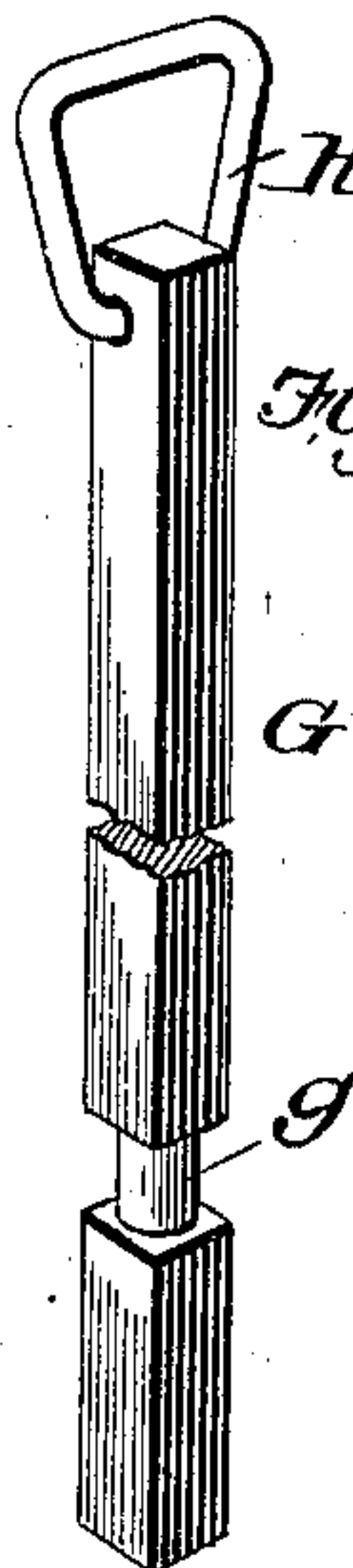
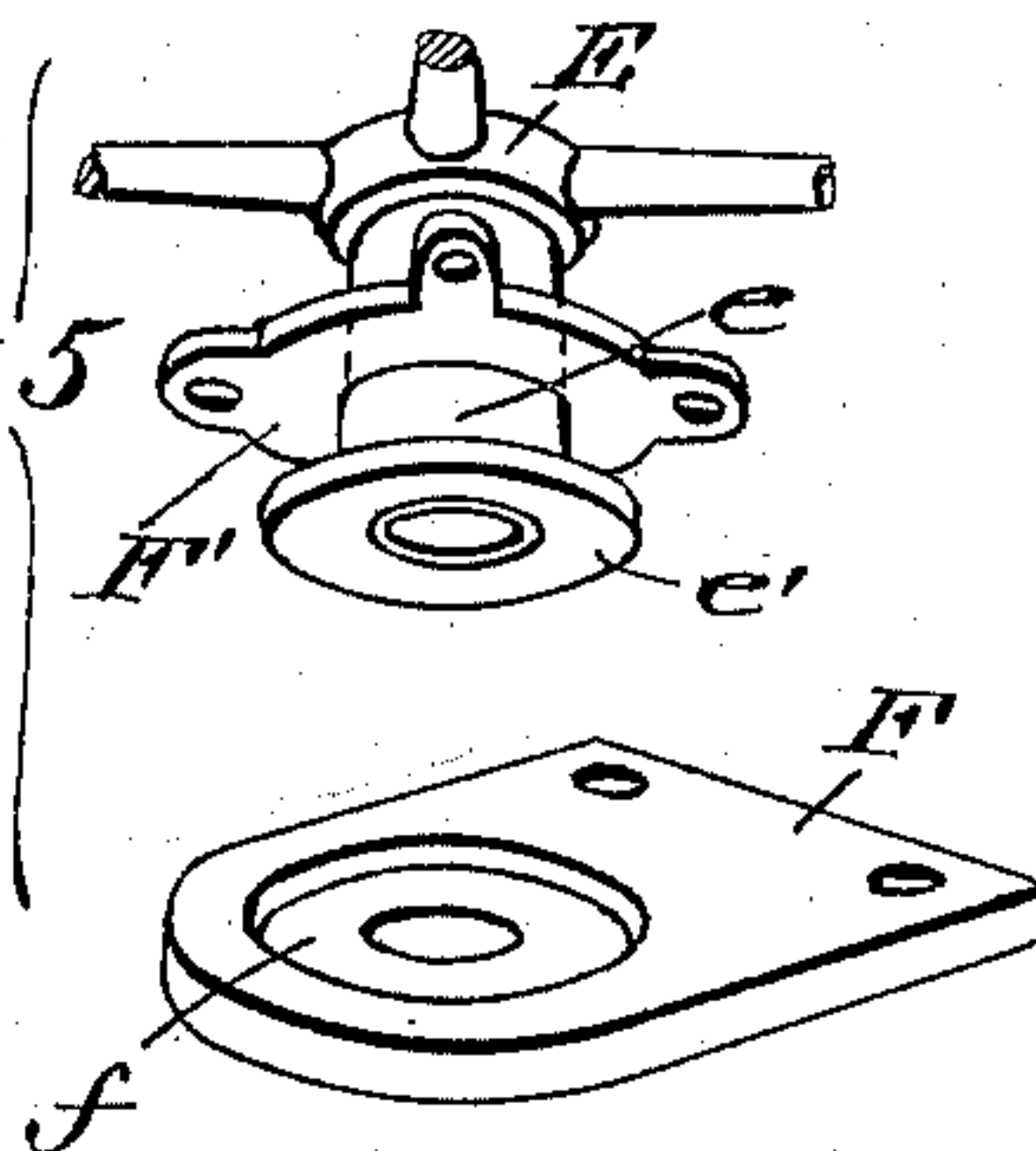


Fig. 5.



WITNESSES:

Jos. A. Ryan
P. B. Zuppin.

INVENTOR

Richard J. Voelker.

BY *Munn & Co.*

ATTORNEYS.

UNITED STATES PATENT OFFICE.

RICHARD J. VOELKER, OF ST. LOUIS, MISSOURI.

FIRE-TRUCK.

SPECIFICATION forming part of Letters Patent No. 598,453, dated February 1, 1898.

Application filed July 22, 1897. Serial No. 645,546. (No model.)

To all whom it may concern:

Be it known that I, RICHARD J. VOELKER, of St. Louis, in the State of Missouri, have invented a new and useful Improvement in Fire-Trucks, of which the following is a specification.

My invention is an improvement in fire-trucks, and particularly in the steering-gear thereof; and the invention has for an object to provide simple constructions by which the steering-wheel shaft may be prevented from accidentally jumping or being jarred out of place and by which the shaft may be removed without displacing the steering-wheel.

The invention consists in certain novel constructions, combinations, and arrangements of parts, as will be hereinafter described, and pointed out in the claims.

In the drawings, Figure 1 is a side view, and Fig. 2 is a sectional view, of my improvement. Fig. 3 is a cross-section on about line 3 3 of Fig. 2. Fig. 4 is a detail view of the shaft, and Fig. 5 shows detailed parts of the hand-wheel and the devices by which it is secured permanently to the truck-frame.

The pinion A, which may be of ordinary construction, may be connected with the rest of the gear mechanism in the usual manner. Immediately above this pinion I arrange a collar or sleeve B, which is entered by the point of the latch-pin C, which is operated by the foot-lever D, a spring *d* engaging said lever and tending to hold the pin normally projected into latched position.

The steering-wheel E rests upon and has a journaled connection with its support F and has a square or other non-circular opening to receive its shaft G. This shaft G is squared at its lower end to fit a socket in the pinion A, so it is keyed to said pinion and is provided with a groove *g* in position to receive the point of the latch-pin C when the shaft is keyed to the pinion. This holds the wheel-shaft firmly in connection with the pinion without interfering with the free turning of said shaft. At its upper end the shaft has a loop H, by which it may be easily withdrawn when desired.

By the described construction it will be seen the shaft will be locked firmly coupled to the pinion and yet can be released in a moment when it is desired to withdraw the shaft.

This withdrawal of the shaft can be accomplished by simply pulling it up through the steering-wheel without disturbing such wheel, and the withdrawal of the shaft permits all the ladders to be taken from the truck for use, and when the ladders are reapplied the shaft can be inserted and secured in a moment's time after the ladders are again placed on the truck.

In securing the journaled connection of the steering-wheel with its support I prefer to provide the latter with a socket *f*, in which is fitted a flange or head *e'* on the lower end of the hub *e* of the steering-wheel, a plate F' being secured to the support F and overlapping the flange or head *e'*, as will be understood from Figs. 2 and 5. This holds the steering-wheel permanently in position and yet permits the same to turn, as desired, in the steering operation.

While it may be preferred to arrange and construct the latch mechanism as shown, it is manifest it may be varied and may be arranged to operate near the upper end of the shaft.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a ladder-truck, the combination of the steering-wheel, and its shaft, such shaft being removable independently of the wheel substantially as described.

2. In a ladder-truck, the combination of the pinion, the steering-wheel shaft detachably coupled with said pinion and a latch by which to secure the shaft in connection with the pinion substantially as described.

3. In a ladder-truck, the combination of the pinion, the shaft detachably coupled therewith and having a circumferential groove, the latch-pin movable into and out of said groove and the foot-lever by which to operate said latch-pin substantially as described.

4. As an improvement in ladder-trucks the pinion, the steering-wheel having a non-circular opening, the support for such wheel and the shaft insertible and removable through such opening without disturbing the steering-wheel substantially as described.

5. As an improvement in ladder-trucks, the steering-wheel, the support to which said wheel is held and journaled, the steering-gear

and the shaft detachably engaged with said gear and removable independently of the steering-wheel substantially as shown and described.

5 6. In a ladder-truck, the steering-wheel having its hub provided with a flange or head, the support having a socket fitted to receive said flange, and the plate secured to the support and overlapping the flange or head of
10 the wheel-flange substantially as shown and described.

7. The steering-gear herein described comprising the pinion, the steering-wheel having

a non-circular opening, the shaft movable through said opening into and out of connection with the pinion without disturbing the steering-wheel, such shaft having a circumferential groove, the latch-pin movable into and out of said groove, and the foot-lever connected with and operating said latch-pin
15 20 substantially as described.

RICHARD J. VOELKER.

Witnesses:

THOMAS HAINES,
HENRY W. DOEDING.