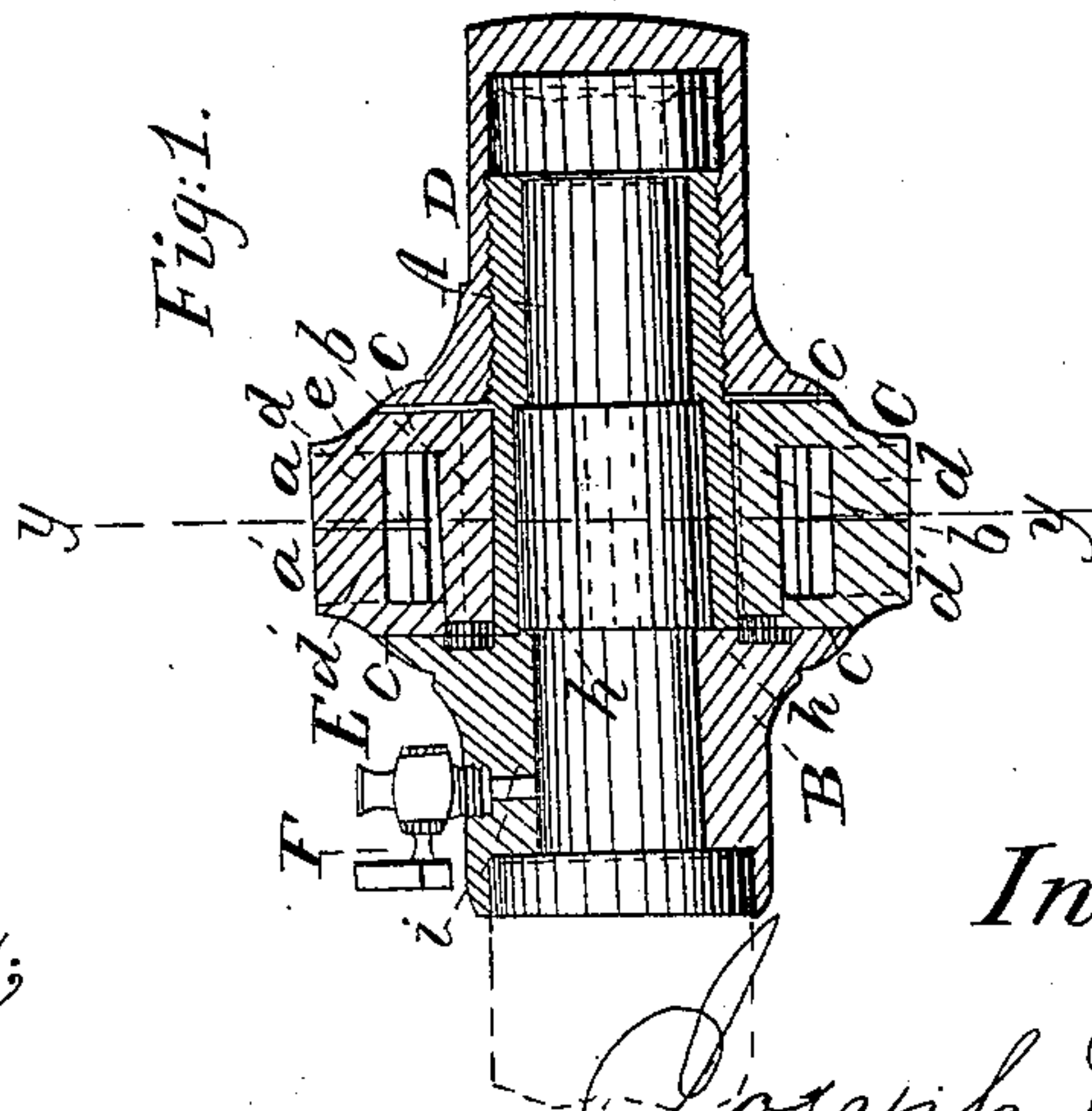
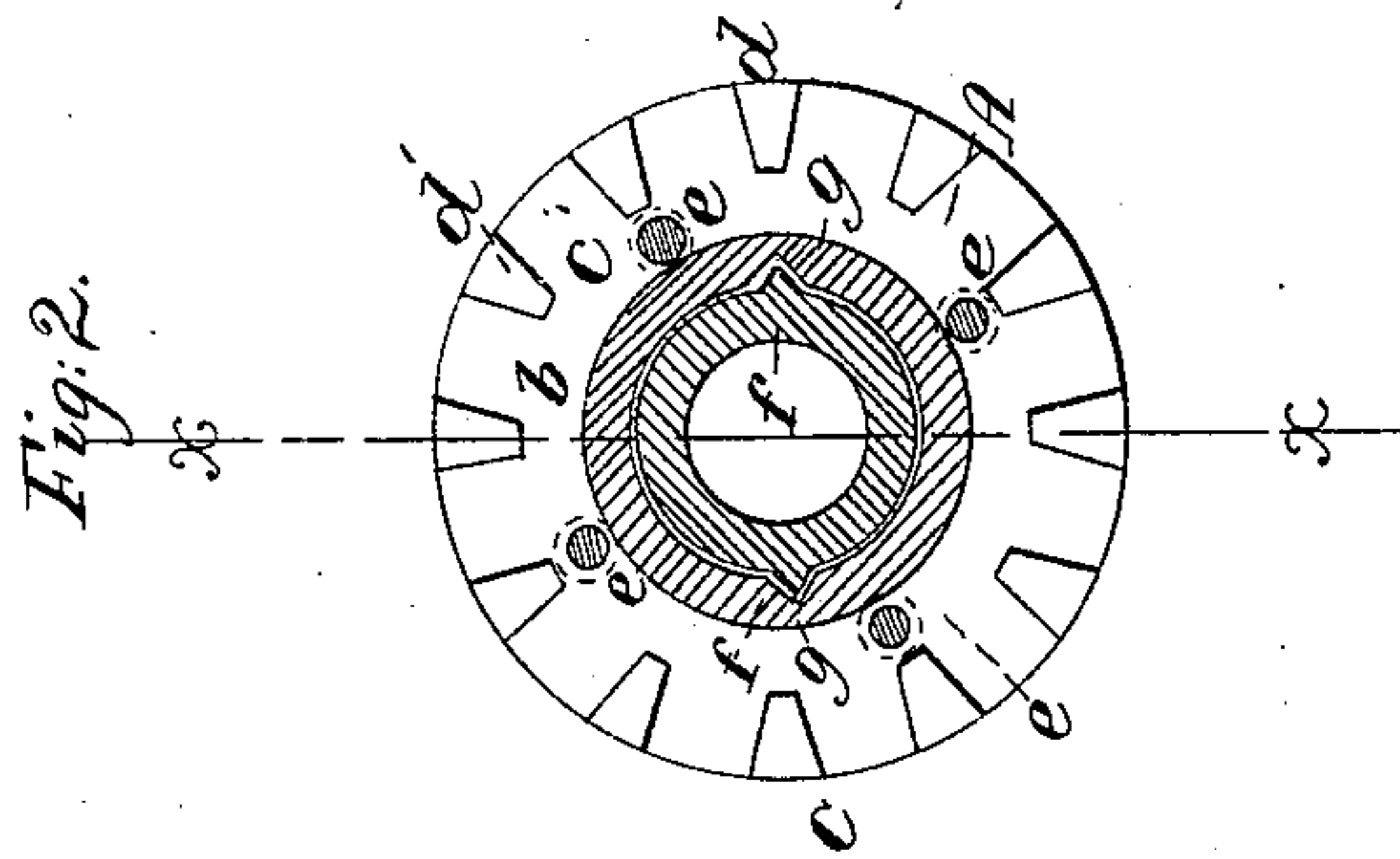


J. ABBOTT.

Hub.

No. 52,255.

Patented Jan. 30, 1866.



Witnesses;

Wm. Edgely

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# UNITED STATES PATENT OFFICE.

JOSEPH ABBOTT, OF WASHINGTON, INDIANA.

## IMPROVEMENT IN METALLIC HUBS FOR VEHICLES.

Specification forming part of Letters Patent No. 52,255, dated January 30, 1866.

*To all whom it may concern:*

Be it known that I, JOSEPH ABBOTT, of Washington, in the county of Davies and State of Indiana, have invented a new and Improved Metallic Hub for Wheels; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a longitudinal central section of my invention, taken in the line *x x*, Fig. 2; Fig. 2, a transverse section of the same, taken in the line *y y*, Fig. 1.

Similar letters of reference indicate corresponding parts.

This invention relates to a new and improved metallic hub for wheels, designed more especially for the wheels of vehicles; and it consists in constructing the hub in such a manner that the spokes may be readily fitted into it and firmly secured in position when fitted into it, and a defective or broken spoke removed and replaced by a new one with the greatest facility whenever required, and all the parts so arranged that a very durable and economical hub will be obtained, due provision being made for the proper lubrication of the spindle or arm of the axle and for the exclusion of dust therefrom.

A represents the box or pipe of the hub, which is fitted on the arm or spindle of the axle, and is of cylindrical form with a shoulder, B, at its inner end. This shoulder and box are cast in one piece, and they may be considered as forming the basis of the whole hub.

C represents the body of the hub, which is composed of two parts, *a a'*, of circular form. The part *a* is formed of a hollow cylinder, *b*, of such diameter that it may fit snugly on the box A, with a circular flange, *c*, projecting at right angles from its outer end and having taper lips *d* at its inner side near its periphery, said lips projecting out at right angles from the flange. The other part, *a'*, of the body C is composed of a circular plate, *c'*, fitted on the cylinder *b* of *a*, and having lips *d'* projecting from its outer side and corresponding with the lips *d* of *a*, the lips *d d'* of the flange and plate nearly meeting or coming

in contact when the two parts *a a'* are secured together, which is done by means of screws *e*, passing through the plate *c'* and flange *c*, screw-threads being cut in the holes in flange *c*, and the heads of the screws fitting in countersunk holes in plate *c'*. The spokes of the wheel have their inner ends fitted in the holes or spaces between the lips *d d'*, and are firmly clamped or held in position by screwing the two parts *a a'* together, the butts or inner ends of the spokes being a trifle wider than the spaces between the lips *d d'*, in order that a proper bearing may at times be had against the spokes and the latter tightened at any time by screwing up the cap D, hereinafter described. This body C is prevented from turning on the box or pipe A by means of longitudinal ribs *f* on the exterior of the box or pipe fitting in grooves *g* made in the inner surface of the hollow cylinder *b*, as shown clearly in Fig. 2.

D represents a cap which screws on the outer end of the pipe or box A and firmly clamps the body C in position. The outer part of this cap may be of polygonal form to receive a wrench for the convenience of screwing up the cap, and said cap is sufficiently long to admit of a nut being screwed on the end of the spindle or arm to secure the hub on the same. This spindle or arm and the nut are shown in red in Fig. 1.

The interior of the box or pipe has a recess, *h*, made in it to serve as an oil-chamber or oil-retainer, and a small cup, E, is affixed to the inner end of the box or pipe and provided with a faucet, F. In lubricating the spindle or arm the oil is poured into the cup E, and the faucet being opened the oil passes through a small opening, *i*, to the spindle or arm and lodges in the recess or oil-chamber *h* and keeps the spindle or arm lubricated its entire length.

It is designed to have all the parts of the hub of malleable cast-iron. It may be constructed at a very moderate cost, admits of the wheel being constructed or put together with greater facility than when the ordinary wooden hub is used, or any of the metallic hubs hitherto devised which have passed under my observation.

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

1. The two-part body C, provided with lips *d d'* to form mortises, and employed in com-



ination with the pipe A, shoulder B, and screw-cap D, as and for the purposes specified.

2. The oil-cup E, provided with a faucet, F, and communicating with the interior of the pipe or box A, substantially as and for the purpose set forth.

3. The recess *h* in the pipe or box A, when

used in combination with the oil-cup E and faucet F, substantially as and for the purpose specified.

JOSEPH ABBOTT.

Witnesses:

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