## W. H. CONVER. Pumn

No. 164,147.

Patented June 8, 1875.

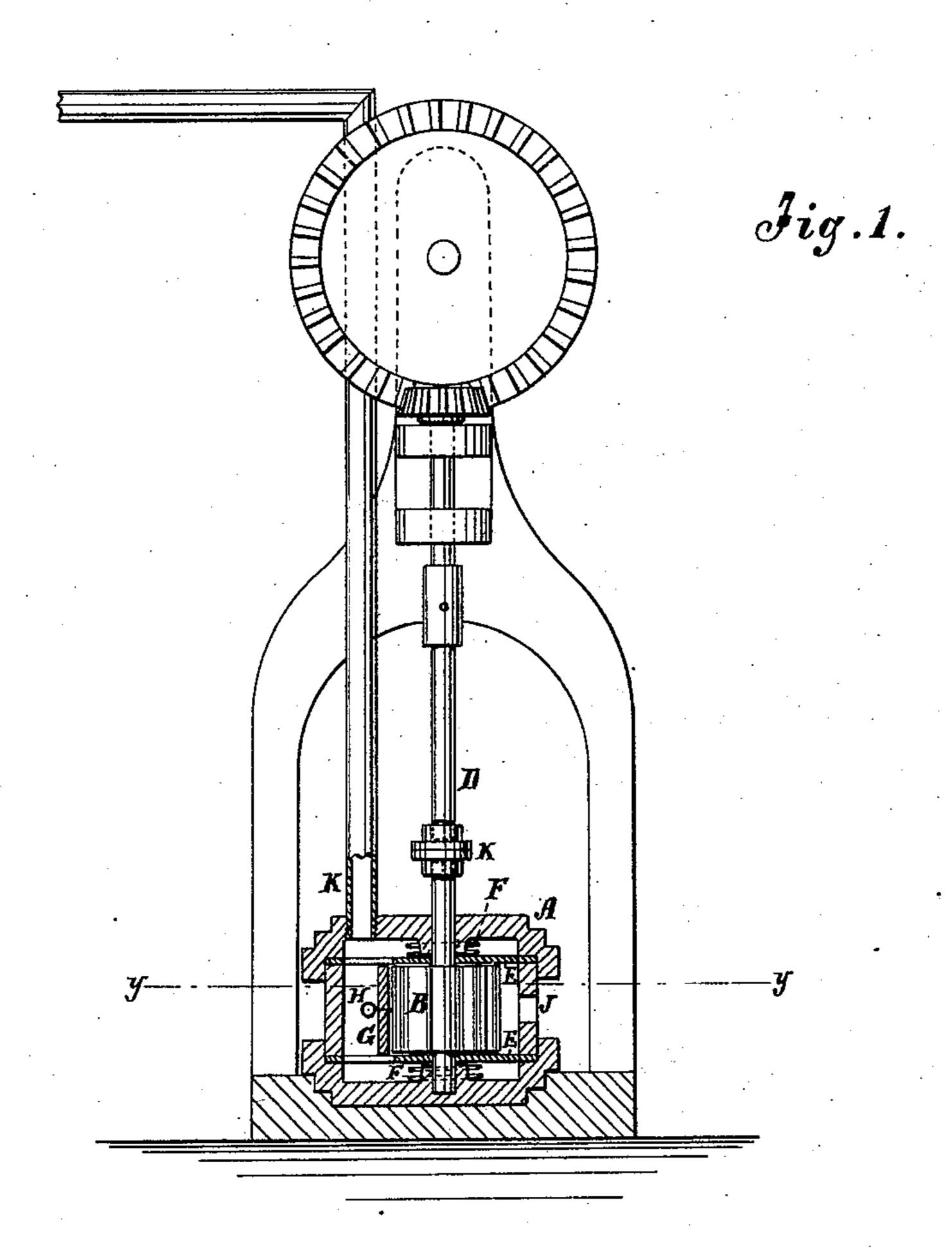
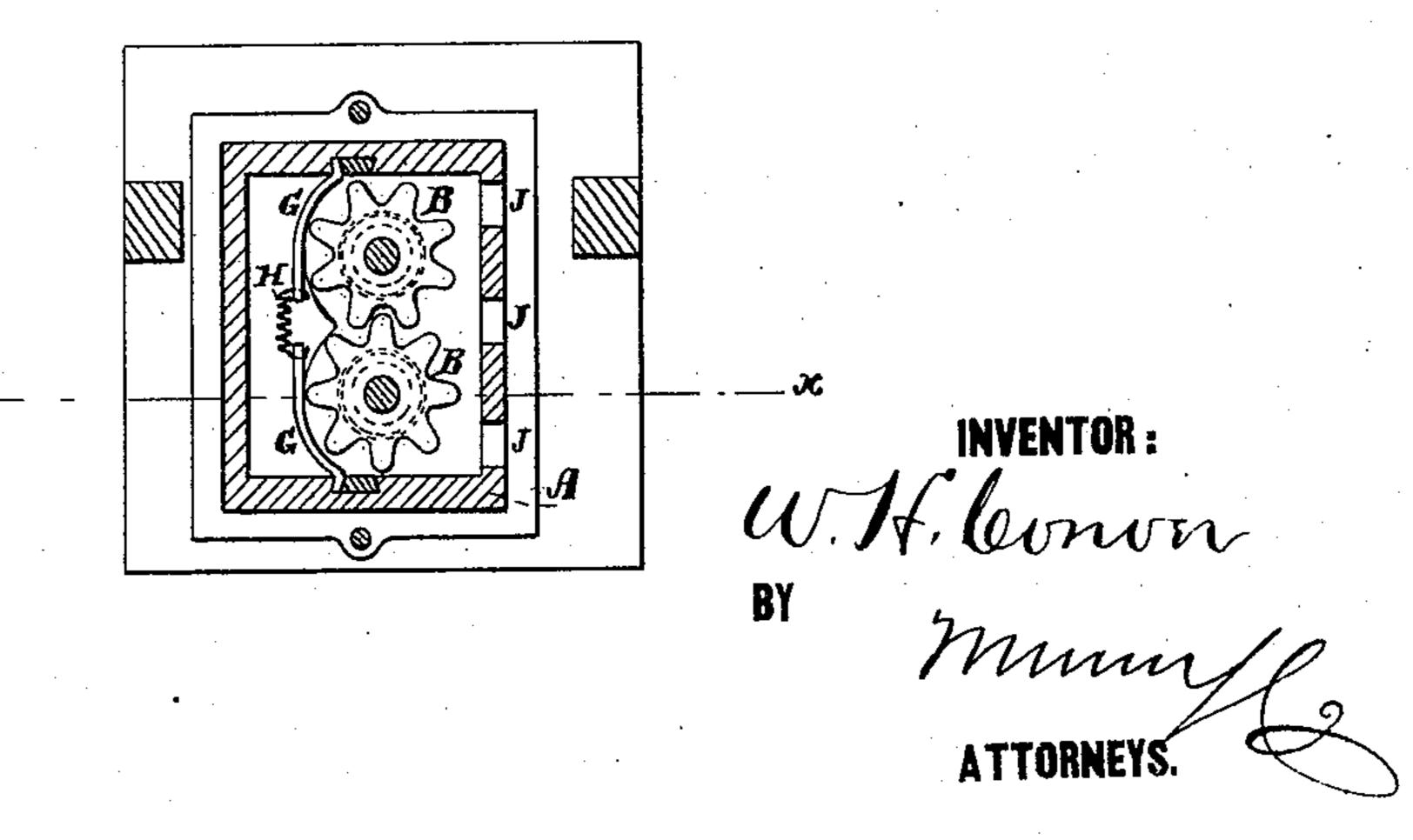


Fig. 2.



A Bennemendorf.

WITNESSES:

THE GRAPHIC CO.PHOTO-LITH.39 & 41 PARK PLACE, N.Y.

## UNITED STATES PATENT OFFICE.

WILLIAM H. CONVER, OF AGNEW'S MILLS, PENNSYLVANIA.

## IMPROVEMENT IN PUMPS.

Specification forming part of Letters Patent No. 164,147, dated June 8, 1875; application filed April 24, 1875.

To all whom it may concern:

Be it known that I, WILLIAM H. CONVER, of Agnew's Mills, in the county of Venaugo and State of Pennsylvania, have invented a new and Improved Pump, of which the follow-

ing is a specification:

My improved pump consists of two cogwheels, running together in a case, to pass the water between them, with leather packing-diaphragms confined against the ends of the wheels, and also leather packings for the faces of the wheels, also held by springs in a manner calculated to afford efficient packings with but little friction.

Figure 1 is a sectional elevation of my improved pump, taken on the line x x of Fig. 2; and Fig. 2 is a horizontal section, taken on the

line  $y \ y$  of Fig. 1.

Similar letters of reference indicate corre-

sponding parts.

A represents the case, in which are two cogwheels, B, running together in the ordinary arrangement of such wheels, for passing the water between them in the spaces between the cogs, the wheels being turned by power applied to the axis of one of the wheels by a shaft, D. With these wheels I propose to combine packing-diaphragms E and springs F, to press them against the ends of the wheels, to make water-tight joints thereat, and for packing the faces of the wheels, to prevent the water from going back between

the wheels and walls of the case. I propose to use the leather face-packings G, with springs H to hold them against the faces, the springs extending across the space for the discharge of the water from the wheels.

The water enters the pump-case through the openings J, and exhausts through pipe K, to which it passes through one of the packing-diaphragms E, when the exhaust-pipe is attached to the side of the pump-case; but when the exhaust is connected to the face of the pump-case, the water will go directly out without passing through the diaphragm.

It is designed to have the shaft D coupled to the pump-shaft by a loose coupling, K, capable of working up and down a little on the pump-shaft, to allow of expansion and contraction without affecting the pump.

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

1. The combination of packing-diaphragm E and springs F with the toothed wheels B and a case, A, substantially as specified.

2. The combination of face-packings G and springs H with the toothed wheels B and packings E, substantially as specified.

WILLIAM HENRY CONVER.

Witnesses:

AARON H. CRAWFORD, JACOB ALLEBACH.