(No Model.)

2 Sheets—Sheet 1.

E. KUICHLING.

Hydrant.

No. 232,646. Patented Sept. 28, 1880.

Fig. 1

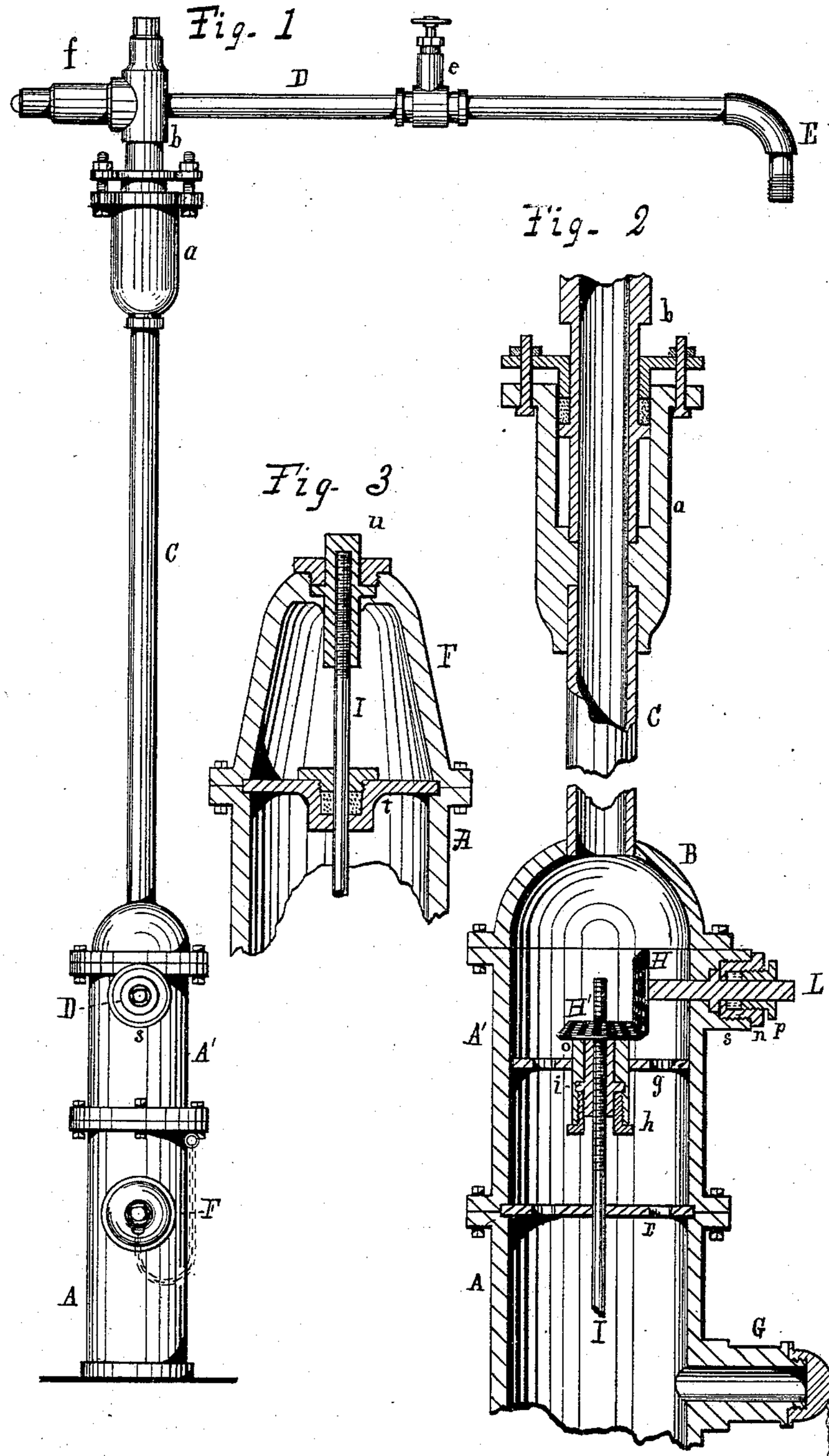

Fig. 2

Fig. 3

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(No Model.)

2 Sheets--Sheet 2.

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Fig. 4

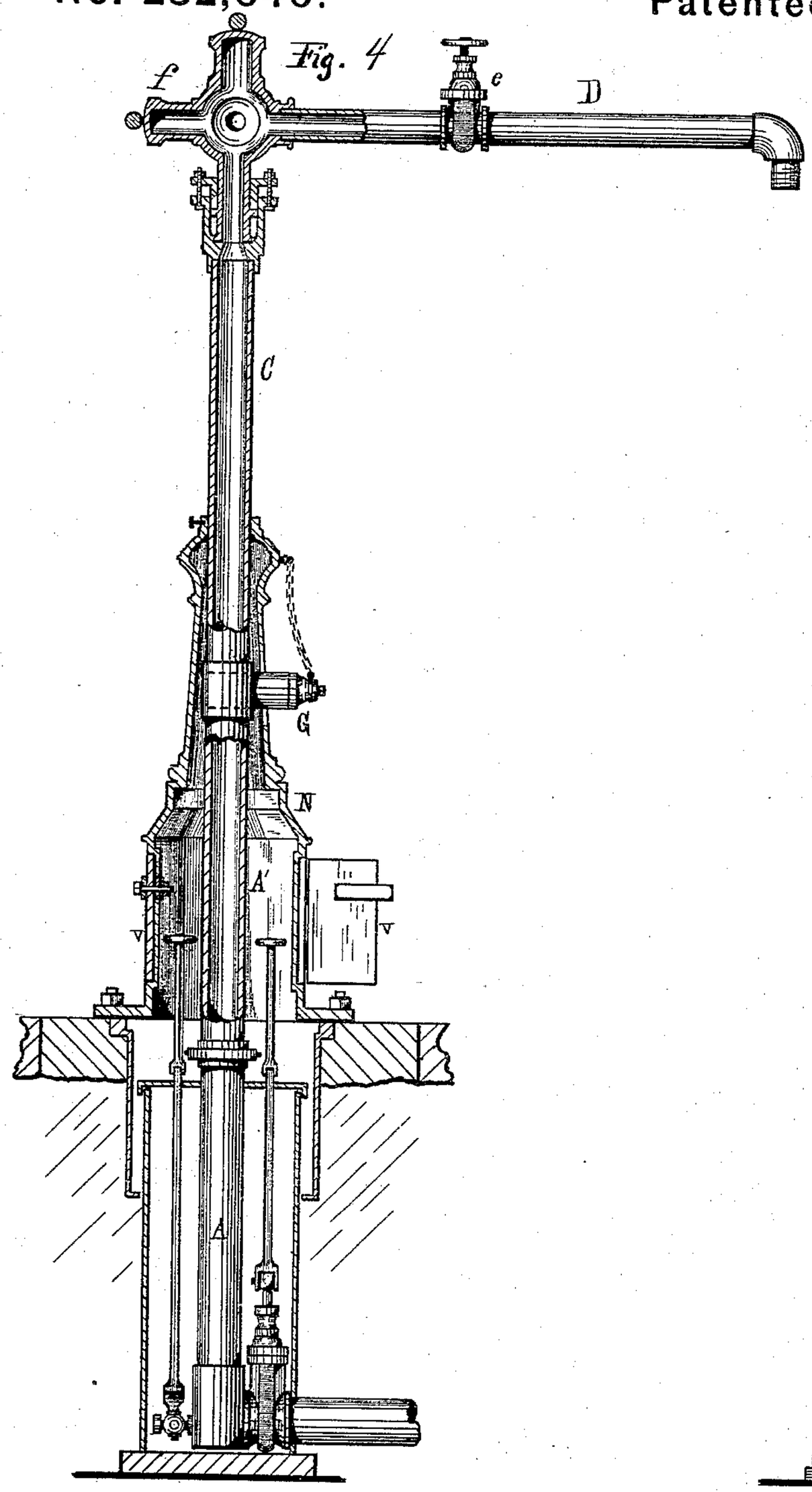
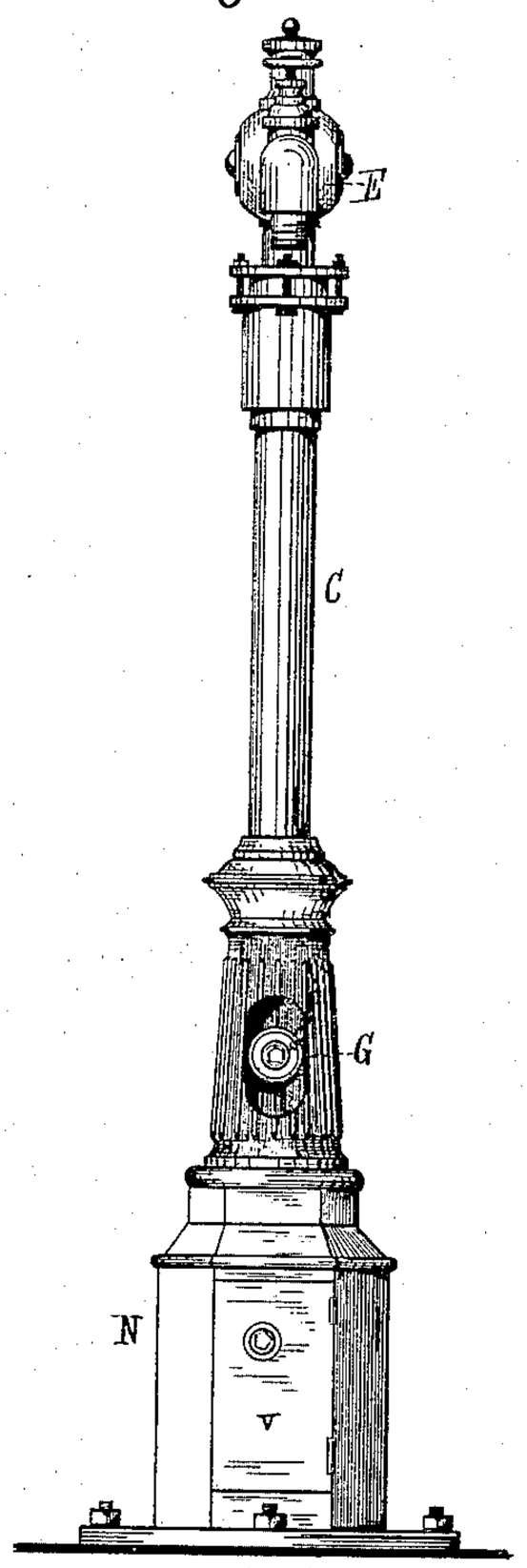


Fig. 5



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UNITED STATES PATENT OFFICE.

EMIL KUICHLING, OF ROCHESTER, NEW YORK, ASSIGNOR TO HIMSELF AND J. NELSON TUBBS, OF SAME PLACE.

HYDRANT.

SPECIFICATION forming part of Letters Patent No. 232,646, dated September 28, 1880.

Application filed March 5, 1880. (No model.)

To all whom it may concern:

Be it known that I, EMIL KUICHLING, of the city of Rochester, in the county of Monroe and State of New York, have invented an Improved Attachment for Hydrants, of which the following is a specification, reference being had to the annexed drawings, in which—

Figure 1 is a side elevation of my improved hydrant attachment. Fig. 2 is a central section of a portion of the same. Fig. 3 is a sectional view through the top of the hydrant. Fig. 4 is a sectional elevation of a modified form of my improved hydrant attachment. Fig. 5 is a front elevation of the same.

My invention relates to an improved hydrant attachment, designed more particularly for use for filling portable water-tanks, but capable of other applications; and my invention consists in the combination and arrangement of the various parts, as hereinafter more fully set forth.

My improved hydrant attachment is represented in the accompanying drawings, in which A A′ are sections constituting the body of the hydrant; B, the cover or cap thereof; C, the upright pipe or standard, and D the horizontal swinging arm, carrying a suitable discharge-nozzle, E.

The sections A and A′ are secured together by bolts passing through flanges, and the lower section is provided with one or more nozzles, F, for the attachment of fire-hose. These nozzles are provided with removable screw-caps, in the manner customary in such devices.

A cap, B, is attached to the upper end of the section A′, and the upright pipe C is secured to the cap in any convenient manner.

The section A′ and the cap may be cast together in one piece; but I prefer, for convenience of access to the bevel-gears H H′, to construct these parts as shown in the drawings.

The lower section or part of the hydrant is connected with the main in the usual manner, and it is provided with a valve of any ordinary construction, arranged to be opened and closed by the valve-rod I.

The upright pipe C is provided at its upper end with an enlargement or gland, *a*, into which is fitted, by a suitable packed joint, the pipe *b*, to which the horizontal swinging arm D is attached. The arm D is provided with a stop-valve, *e*, arranged to be worked by a hand-wheel, or in any other convenient manner. The pipe *b* revolves in the gland *a*, and by this arrangement the arm D can be swung into any desired position, either parallel to or at an angle with the line of the curbstone in the case of city streets.

Any ornamental form may be given to the gland and the pipe by which it is connected with the horizontal arm, and the weight of the latter may be counterbalanced, if desired, as represented at *f*, Figs. 1 and 4.

The valve-rod I is attached to the valve in the lower part of the hydrant, so that it cannot revolve, and it is raised and lowered for the purpose of opening and closing the valve by means of the bevel-gears H H′ and the shaft L, which projects beyond the section A.

A perforated diaphragm, *g*, Fig. 2, is secured within the section A′, which diaphragm carries a central boss, *o*, within which the nut *i* revolves. The gear H′ is keyed onto the upper end of the nut *i*, which, by its revolution, raises or depresses the valve-rod I. The nut *i* is secured in place within the boss *o* by a collar and nut, *h*.

The gear H is fastened to the inner end of the shaft L, which is provided with a collar secured in a hub, *s*, cast on the section A′ by the nut *n*, within which a gland is packed by the nut *p*. A universal joint or other suitable device may be substituted for the bevel-gears.

A perforated diaphragm, *r*, Fig. 2, may be interposed between the two sections A and A′, for the purpose of holding the valve-rod I in place when the section A′ and the upright pipe C, with its attachments, are removed.

The object of the construction above described is to permit of the removal of the upper hydrant-section, the vertical pipe, and the horizontal arm during the colder seasons of the year, when their use is not required, and to allow of the use of the ordinary hydrant-cap F, Fig. 3, in their place. In this case the diaphragm *t*, provided with a stuffing-box about the valve-rod, is substituted for the perforated

diaphragm *r*, and motion is given to the valve-rod by means of the nut *u*, secured in the upper end of the cap F.

In the practical use of my improved hydrant attachment the valve at the base of the hydrant would be left open and the flow of water through the horizontal arm controlled by the hand-valve *e*.

My improved hydrant attachment may be made of any desired size, and its appearance may be improved by any suitable ornamentation.

I have thus far described my invention as applied to the ordinary post-hydrant. It may, however, be applied to any other form of hydrant. In Figs. 4 and 5 it is represented as attached to a flush hydrant—that is, a hydrant which does not project above the level of the pavement. In this case a section, A′, is secured to the lower part of the hydrant A, and it is provided near its upper extremity with one or more nozzles, G, Fig. 4, for the attachment of fire-hose.

The upright pipe C and the horizontal swinging arm D, provided with the hand-valve *e*, constructed as already described, are supported by the section A′. An ornamental casing provided with slotted openings for the nozzle G and with doors V V for access to the valve-rod is placed about the lower part of the attachment.

Any other suitable form of valve may be substituted in place of the valve *e*, which is preferably located in the swinging arm for the convenience of the driver of the watering-cart, but may be placed in the upright C.

I claim—

1. In combination with a hydrant having one or more nozzles for the attachment of hose, the upright pipe C and horizontal swinging arm D, provided with hand-valve *e*, substantially as and for the purposes set forth.

2. The combination of the hydrant-section A, having one or more hose-nozzles, G, the section A′, perforated diaphragm *g*, bevel-gears H H′, valve-rod I, shaft L, upright pipe C, horizontal arm D, provided with valve *e*, substantially as described.

EMIL KUICHLING.

Witnesses:
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