B. HUBER.

FLUID-METER.

No. 169,703. Patented Nov. 9, 1875.

Fig. 1

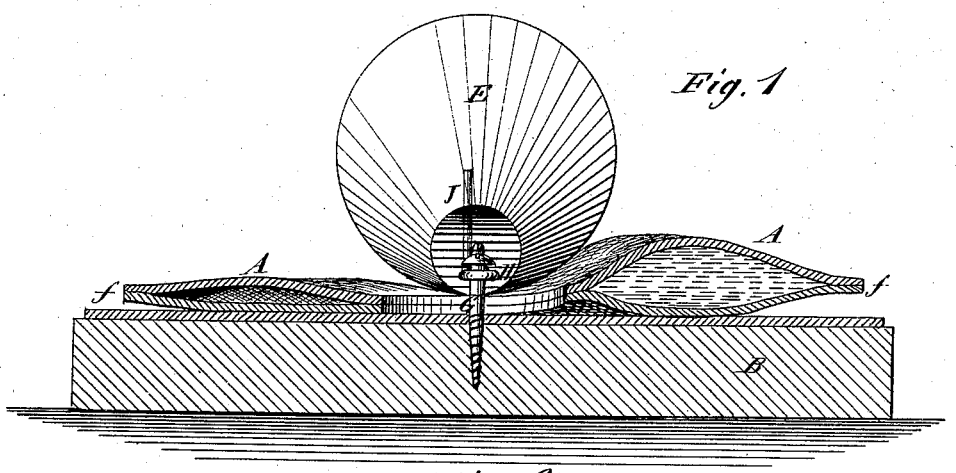


Fig. 2

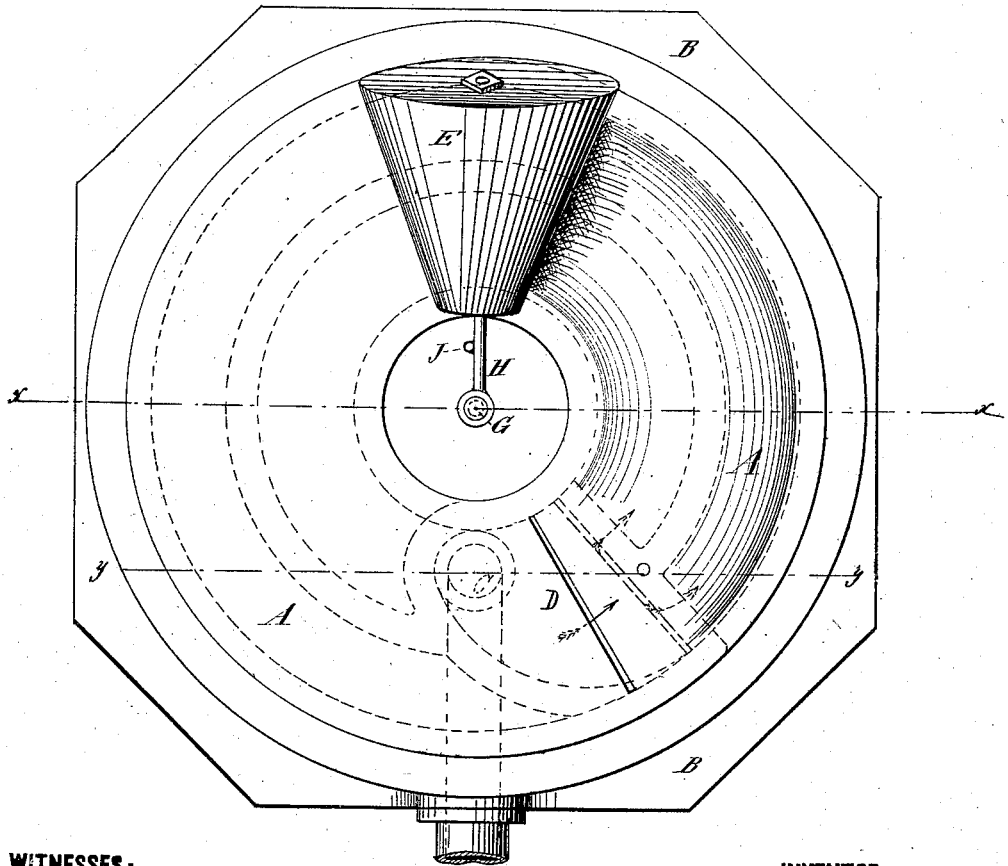
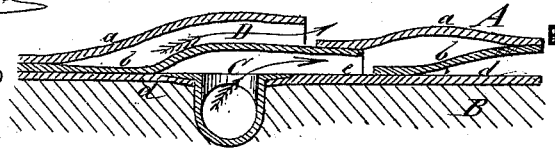


Fig. 3



WITNESSES:

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BERTHOLD HUBER, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN FLUID-METERS.

Specification forming part of Letters Patent No. **169,703**, dated November 9, 1875; application filed April 24, 1875.

To all whom it may concern:

Be it known that I, BERTHOLD HUBER, of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Fluid-Meter, of which the following is a specification:

My invention relates to fluid-meters composed of a circular flexible pipe and a roller, the roller being pushed around on the pipe by the fluid in passing from the inlet to the outlet, and serving to indicate each pipe full of fluid; and it consists of a contrivance of the pipe so that the roller may travel on a level way all round, and an arrangement of the roller by which to connect the recording mechanism in a simple way.

Figure 1 is a section of my improved meter, taken on line *x x* of Fig. 2. Fig. 2 is a plan view, and Fig. 3 is a section of Fig. 2 on line *y y*.

Similar letters of reference indicate corresponding parts.

A represents the circular tube, of flexible material, in flat form, arranged on the flat and level bed B, with the inlet at C, and the outlet D overlapping the inlet, so that the roller E will be carried beyond the inlet before it escapes from the influence of the discharging fluid, the inlet being so constructed by being made narrower or being fastened down to the bed-plate under the discharge, and for a little distance beyond, that it does not rise as high by the fluid as the discharge does, so that the roller passes smoothly and surely over the inlet and discharge, thus saving the necessity of making the bed and the circular tube spiral, as they have heretofore been made. The tube is made of three layers of flexible material, *a*, *b*, and *d*, the two upper ones, *a* and *b*, being cemented together at the outer and inner edges *f*, and *b* being cemented at the middle of the under side to the bottom layer *d*, to secure it in position, and at the same time allow of the inflation of the tube by the fluid. The bottom layer forms a portion of the tube at the inlet *e*, and the rest of it forms an elastic rest for the layers *a b* above, and it affords a simple means of attaching the tube to the bed, so that it can be readily taken off, and it will be held down by the cover, which is to inclose the tube and receive the fluid, and form the packing for the cover.

The machine is so simplified by this arrangement that the roller has only to be pivoted to a center stud, G, by a stem, H, with an eye in it, and this stem will serve for driving the recording mechanism by turning a wheel above by means of a crank-pin, J, extending down from the side of the wheel in front of the stems.

An important advantage of the arrangement, whereby the roller travels on a level way, is, that two rollers may be used on one stem, the latter being extended on the opposite side of the pivot, one of which rollers will balance the other in case the machine does not stand quite level.

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

1. The combination, with roller E, of flat flexible tube A and level bed B, having inlet C, as shown and described, for the purpose specified.

2. The roller, connected to the center stud G by an eye-stem, H, arranged to turn the crank-pin of recording apparatus, substantially as specified.

3. The tube, constructed of three plies of flexible material, *a*, *b*, and *d*, and the inlet arranged between the bottom and middle plies, substantially as specified.

4. The bottom piece of the tube, arranged to form the packing of the inclosing-case, and for attaching the flexible tube to the bed.

BERTHOLD HUBER.

Witnesses:

T. B. MOSHER,

ALEX. F. ROBERTS.