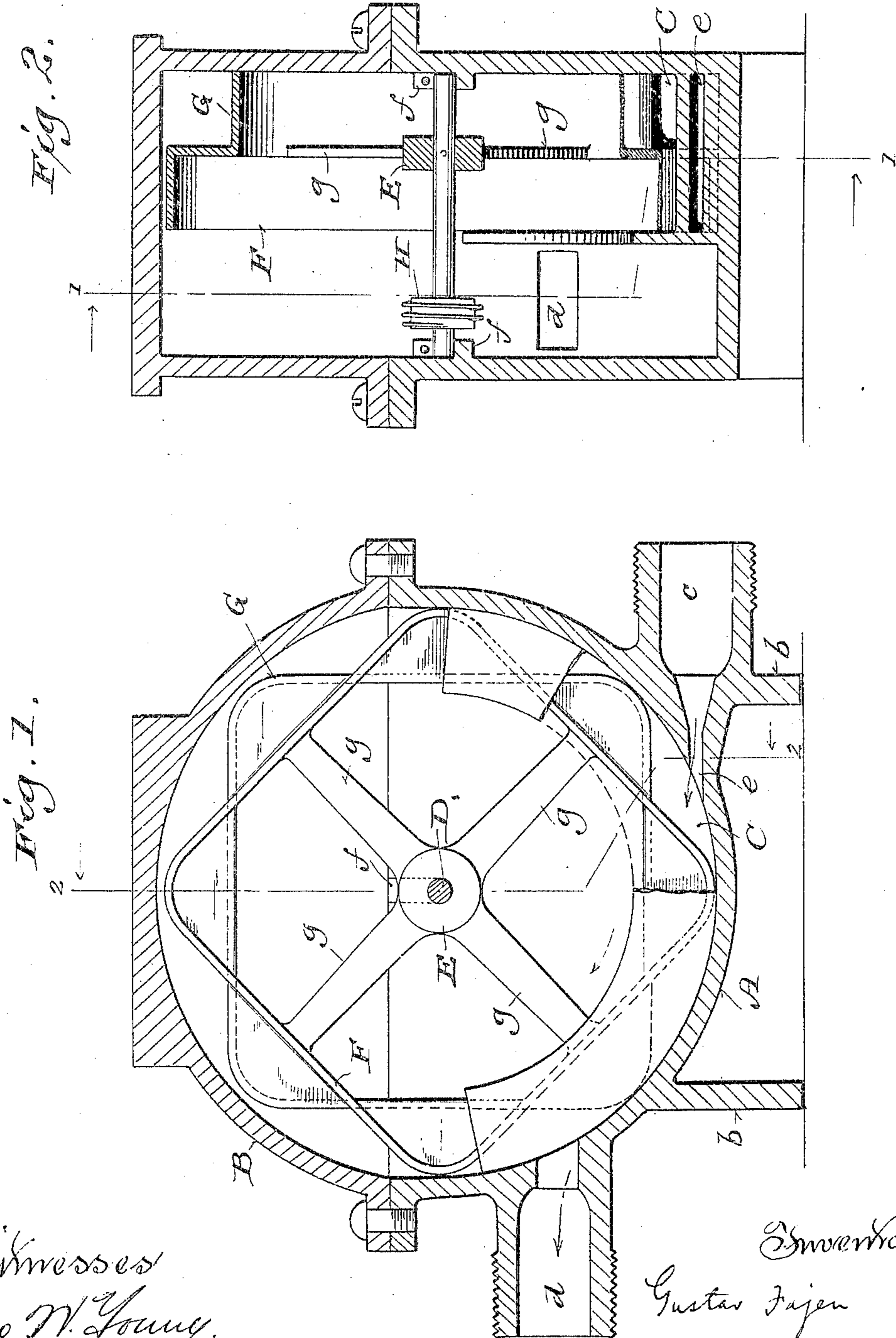


No. 804,460.

PATENTED NOV. 14, 1905.

G. FAJEN.
ROTARY METER.
APPLICATION FILED MAR. 9, 1905.



Witnesses
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UNITED STATES PATENT OFFICE.

GUSTAV FAJEN, OF MILWAUKEE, WISCONSIN.

ROTARY METER.

No. 804,460.

Specification of Letters Patent.

Patented Nov. 14, 1905.

Application filed March 9, 1905. Serial No. 249,188.

To all whom it may concern:

Be it known that I, GUSTAV FAJEN, a citizen of the United States, and a resident of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Rotary Meters; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention consists in certain peculiarities of construction and combination of parts hereinafter particularly set forth with reference to the accompanying drawings and subsequently claimed, the object of the invention being to provide simple, economical, and accurate fluid-meters of the rotary type.

Figure 1 of the drawings represents a vertical longitudinal section of a fluid-meter in accordance with my invention, said view being indicated by lines 1 1 in Fig. 2; and Fig. 2 represents a transverse section of the meter on lines 2 2 in Fig. 1.

Referring by letter to the drawings, A indicates the lower main section, and B the upper cover-section, of an approximately annular casing, these sections being provided with upper outer flanges that are bolted together, the joint being fluid-tight. In practice a suitable packing may be interposed between the flanges of said casing-sections. The section A of the casing is provided with legs *b*, an inlet-nozzle *c*, and an outlet-nozzle *d*, these nozzles being screw-threaded for connection with pipe through which fluid under pressure has flow to and from the meter, of which said casing forms a part. The inlet-nozzle has communication with a segmental trough C in the lower main section of the casing, the passage *e* from said nozzle to the trough being preferably long and shallow at its mouth transversely of said trough. The outlet *d* of the casing is outside of the trough aforesaid, as best shown in Fig. 2.

Arranged to turn in recessed bearing-lugs *f* inside the casing is an axle D, and fast on the axle is a hub E, connected by spokes *g* with polygonal bands F G, that are rounded at their corners. These bands are of the same size and so disposed that each rounded corner of one projects midway between similar corners of the other, all the corners being closed on their inner sides between the bands. The bands rotate together in the trough C

when fluid is flowing through the meter, the disposition of the corners of said bands preventing dead-centers. The axle D of the rotary device comprising the polygonal bands is shown provided with a worm H, by which to transmit motion to any suitable registering mechanism, and while said bands are shown as being of approximately rectangular contour they may be approximately of any preferred polygonal contour, and in any of their various forms they are disposed one against the other, so that each rounded corner of one projects midway between similar corners of the other, and all of the corners are closed on their inner sides between the bands, as above specified.

The above-described meter is an improvement and simplification of the one set forth in my application for patent filed November 25, 1904, Serial No. 234,205.

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

1. A rotary meter comprising a casing having a fluid-inlet and a fluid-outlet, a segmental trough in the casing in communication with the inlet of same, a polygonal rotary device engaging the trough, this device being rounded at its corners and straight between corners; and means in connection with the rotary device for transmitting motion to register mechanism.

2. A rotary meter comprising a casing having a fluid-inlet and a fluid-outlet, a segmental trough in the casing in communication with the inlet of same, a rotary device engaging the trough and including a pair of polygonal bands that are rounded at their corners and set so that each corner of one projects midway between corners of the other, these projecting corners being closed on the inner sides between bands, and means in connection with the rotary device for transmitting motion to register mechanism.

3. A rotary meter comprising a casing having a fluid-inlet and a fluid-outlet, a segmental trough in the casing in communication with the inlet of same, an axle for which the casing is provided with bearings, a pair of polygonal bands centered on the axle to engage the trough and having rounded corners, the set of the bands being such that the cor-

ners of one project midway between corners
of the other and are closed on the inner sides
between bands, and a gear element in connec-
tion with said axle for transmitting motion
5 to register mechanism.

In testimony that I claim the foregoing I
have hereunto set my hand, at Milwaukee, in

the county of Milwaukee and State of Wis-
consin, in the presence of two witnesses.

GUSTAV FAJEN.

Witnesses:

N. E. OLIPHANT,
GEORGE FELBER.