

(Model.)

W. B. WERT.
PUMP BUCKET AND VALVE.

No. 245,680.

Patented Aug. 16, 1881.

Fig. 1

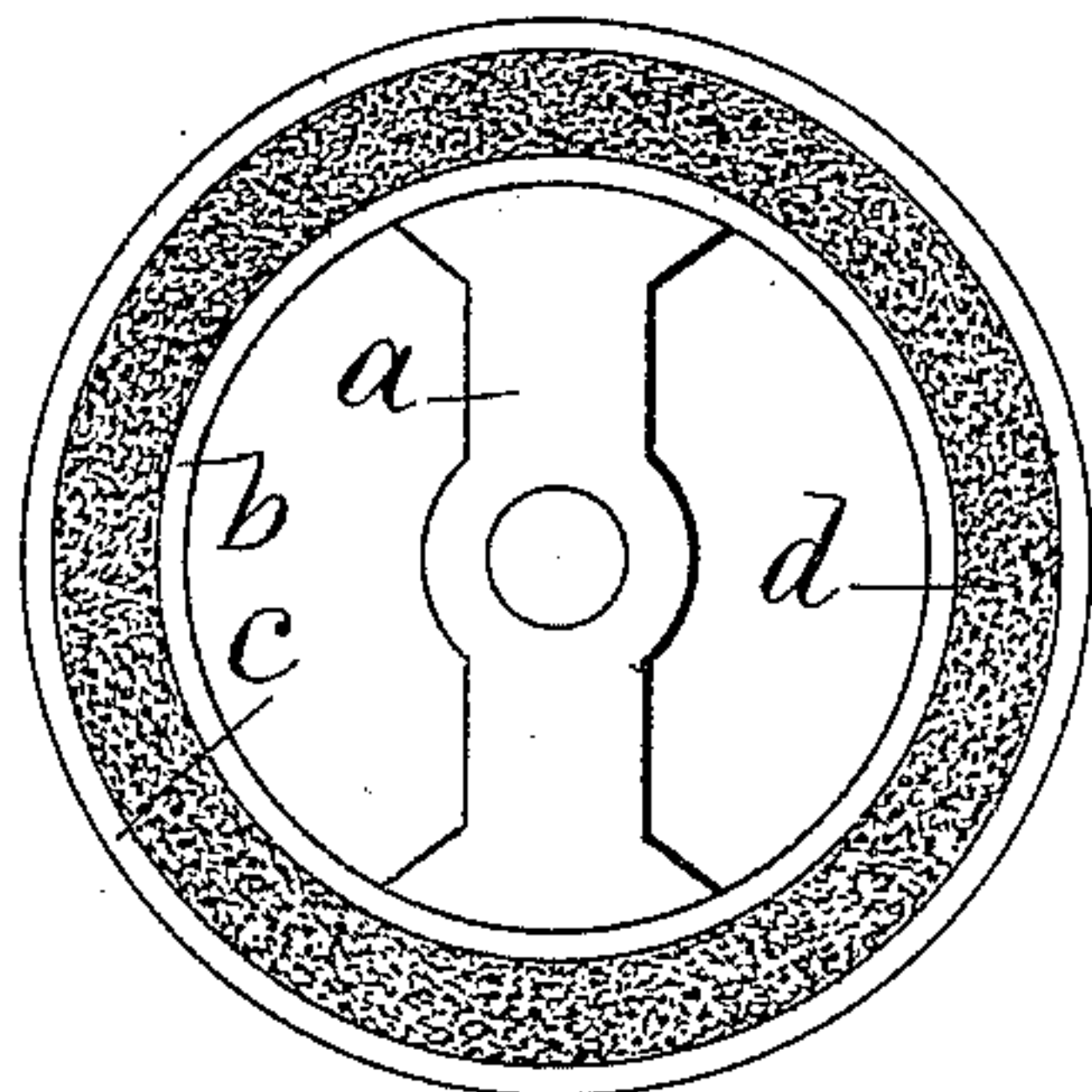


Fig. 2

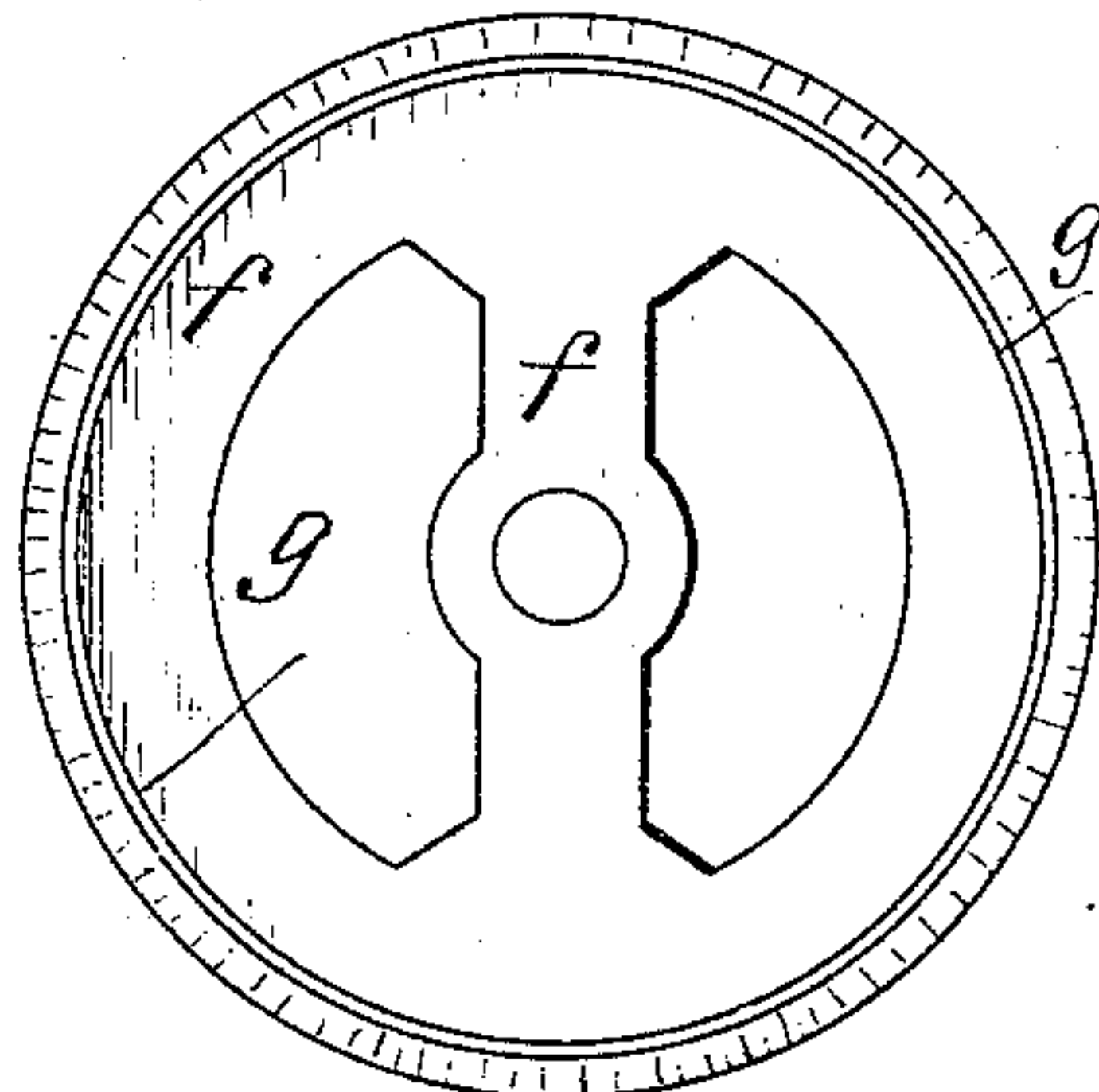


Fig. 3

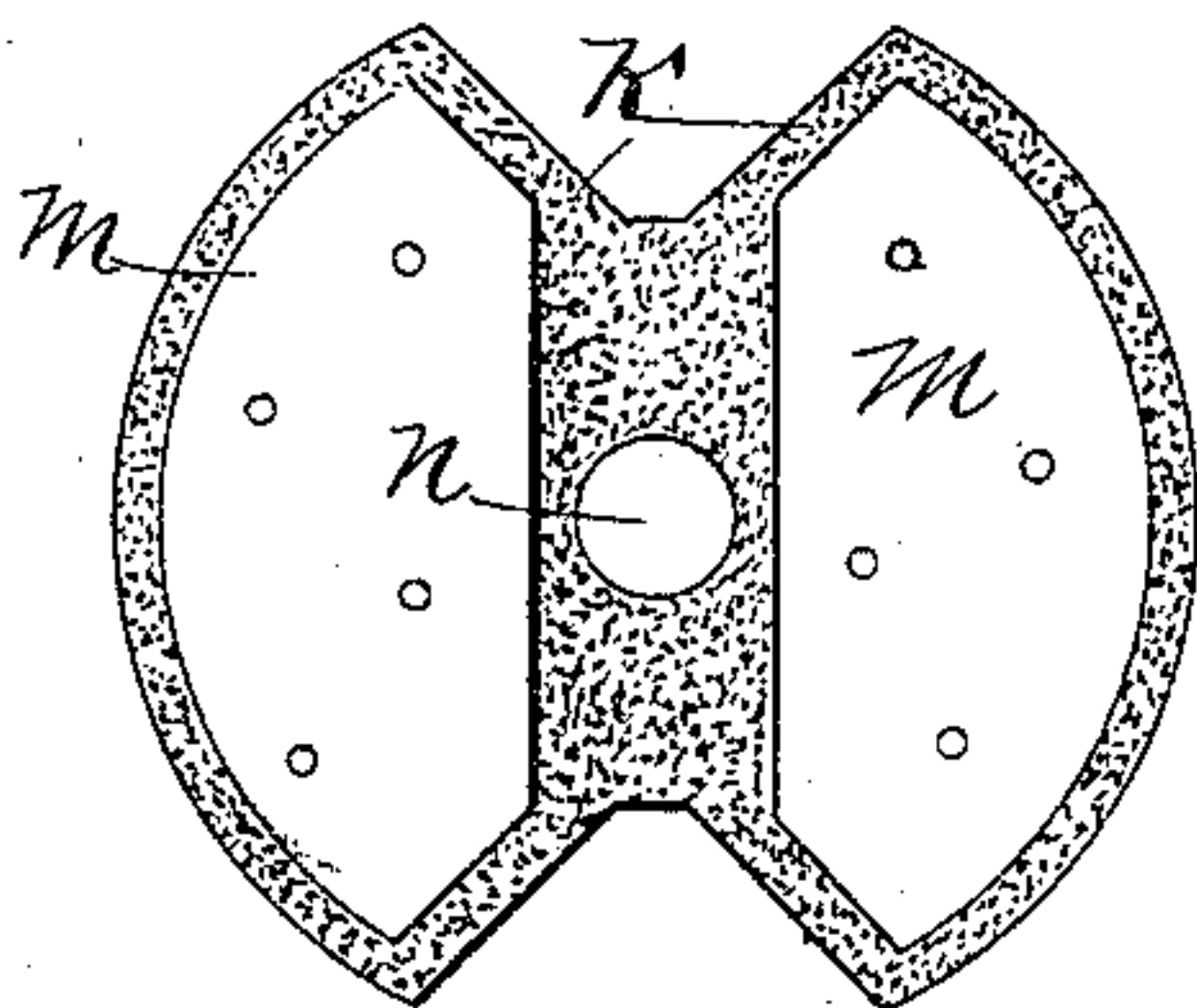


Fig. 4

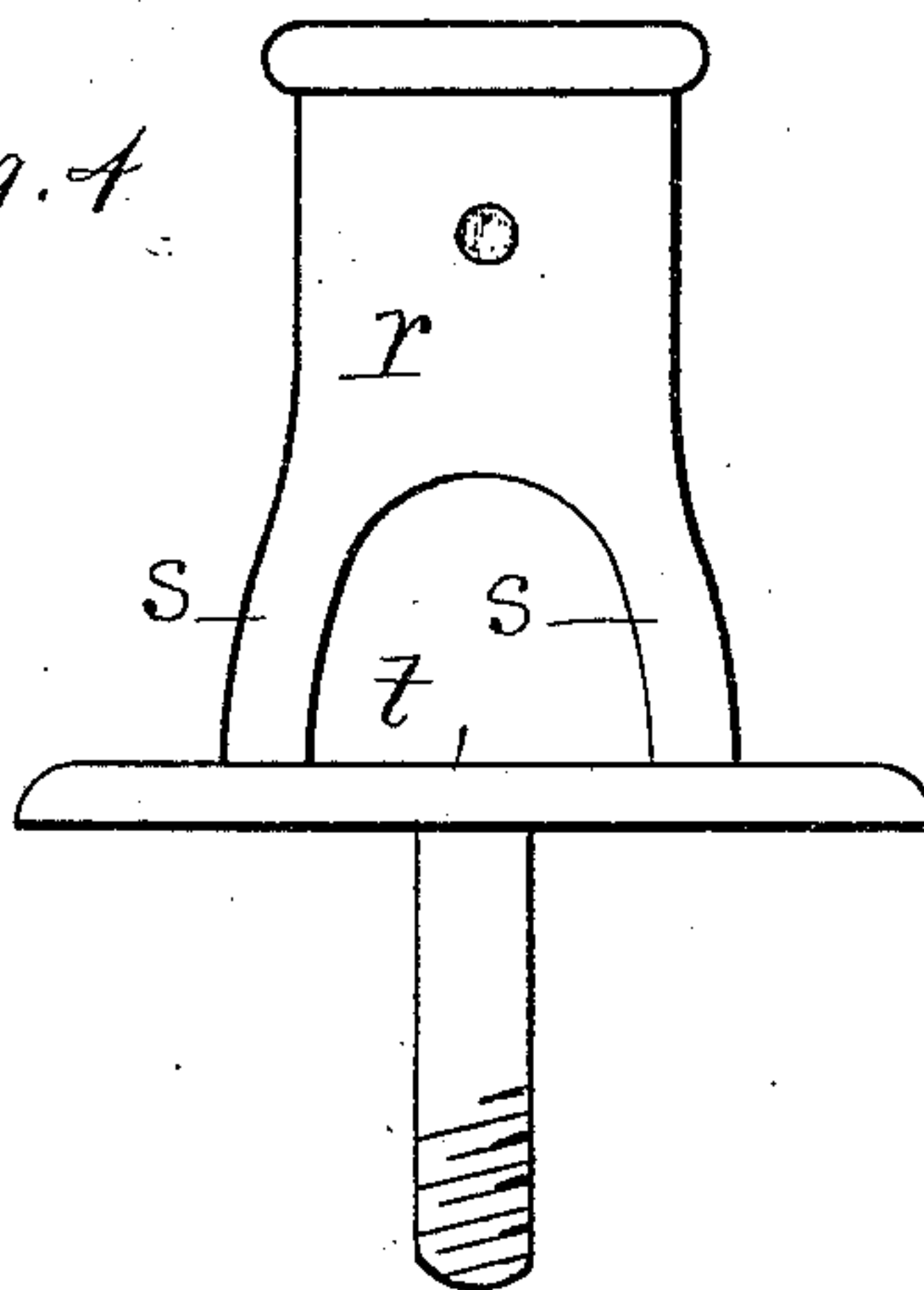


Fig. 5

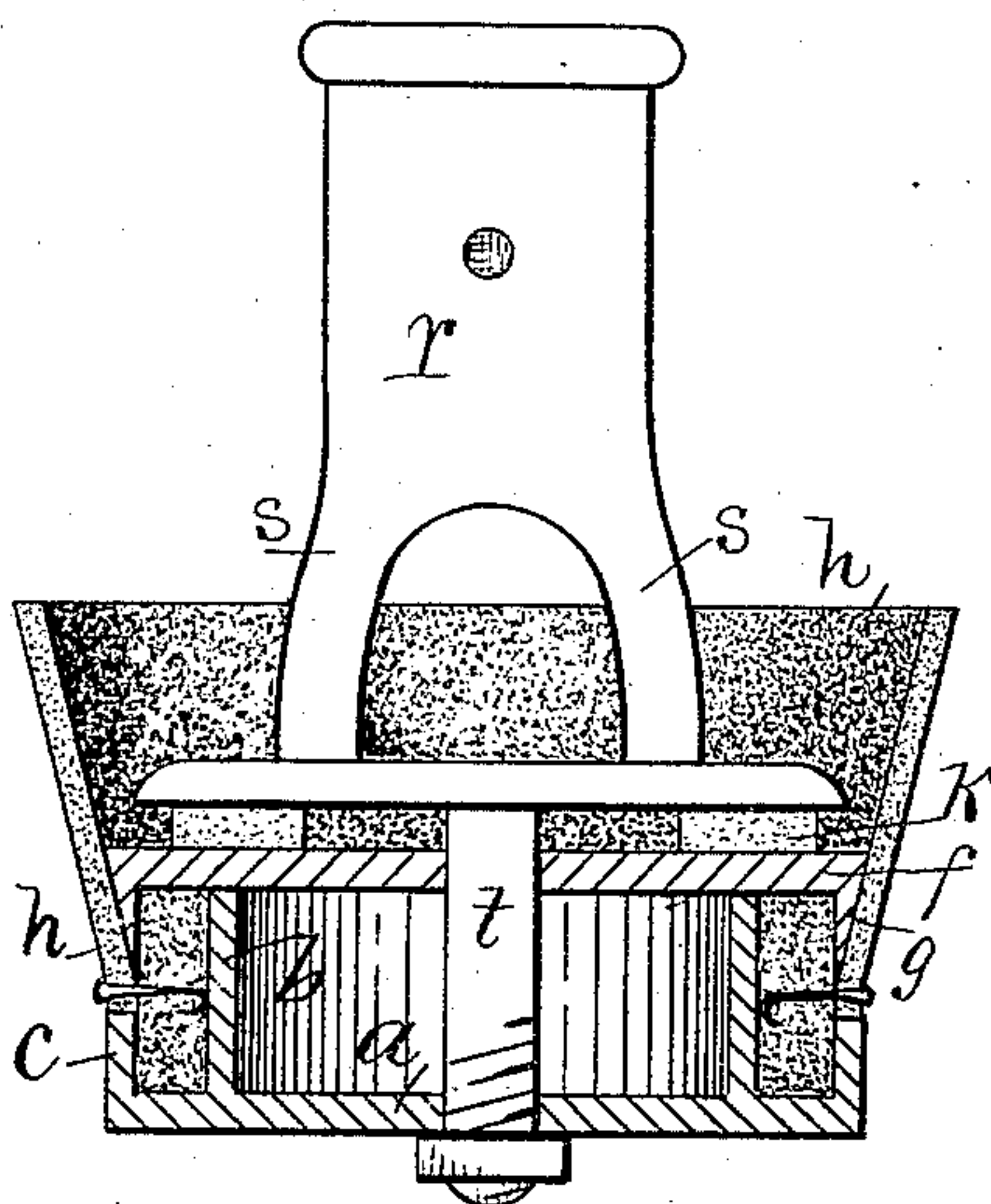
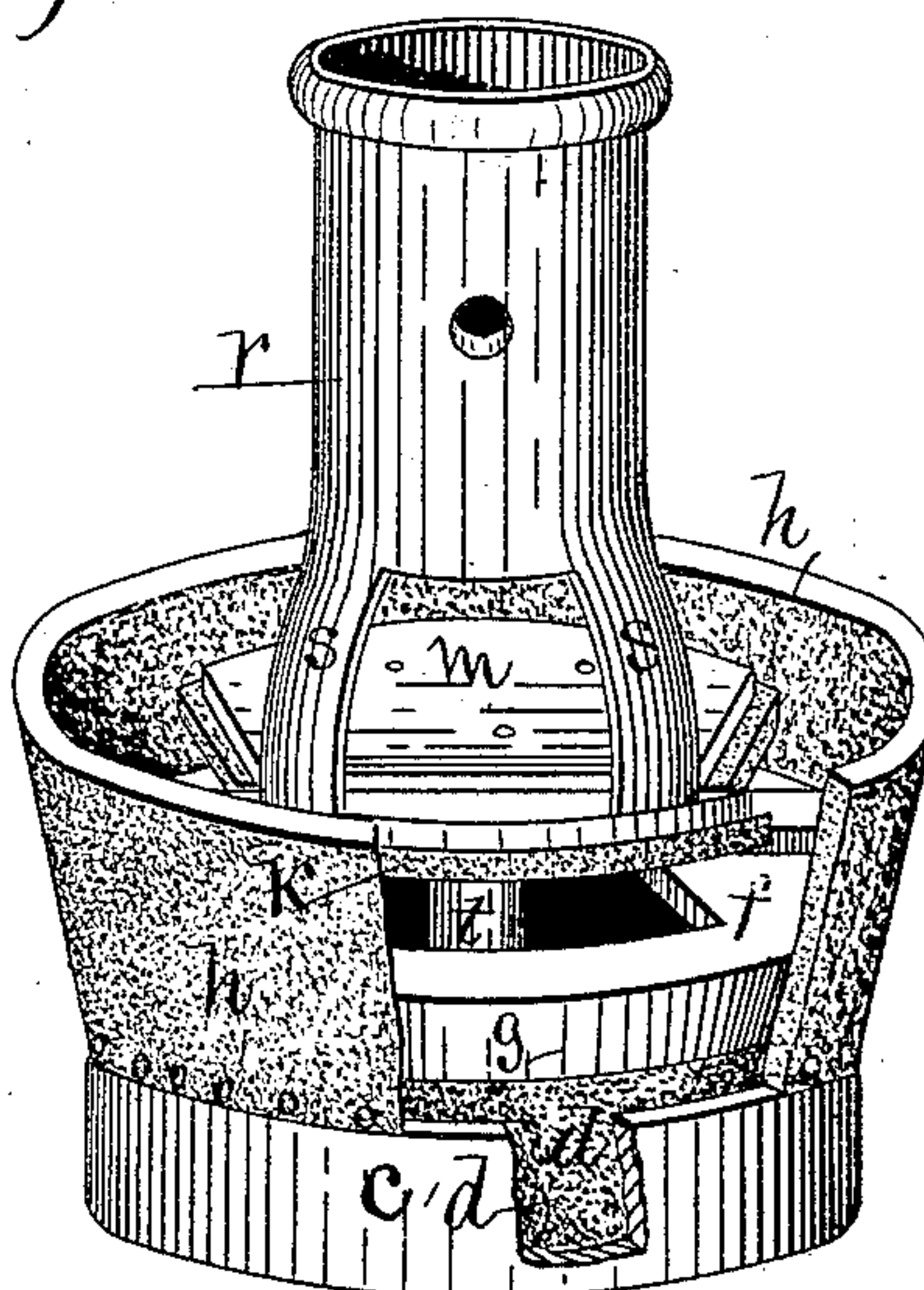


Fig. 6



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UNITED STATES PATENT OFFICE.

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PUMP BUCKET AND VALVE.

SPECIFICATION forming part of Letters Patent No. 245,680, dated August 16, 1881.

Application filed April 29, 1881. (Model.)

To all whom it may concern:

Be it known that I, WILLIAM B. WERT, of Kellogg, in the county of Jasper and State of Iowa, have invented an Improved Pump Bucket and Valve, of which the following is a specification.

My invention consists in forming a skeleton metal bucket in three pieces in such a manner that a flexible packing-band can be readily nailed to a strip of leather inclosed in the rim, and a butterfly-valve detachably connected with the valve-seat by means of a T-shaped clamping device formed integral with the piston-rod socket.

Heretofore a skeleton metal pump-bucket has been formed complete in one piece in such a manner that a flexible packing-band could be nailed or riveted thereto; but my manner of securing a packing-band and a valve to the metal bucket, as hereinafter fully set forth, is novel and greatly advantageous.

Figure 1 of my accompanying drawings is a top view of the base-piece and rim inclosing a leather strip. Fig. 2 shows the under side of the valve-seat, having an annular flange adapted to cover the leather strip inclosed in the rim of the base-piece. Fig. 3 is a top view of the butterfly-valve. Fig. 4 is a side view of the piston-rod socket, having the clamping device at its lower end. Fig. 5 is a half-section of the bucket. Fig. 6 is a perspective view of the complete bucket, showing a part of the packing-band and part of the metal rim removed. Jointly considered these figures clearly illustrate the construction and operation of my complete invention.

a a represent a circular plate and cross-piece formed integral with each other to constitute my base-piece and metal rim. It is perforated in its center, and thereby adapted to receive the end of the clamping device that binds all the parts together.

b is the inner part of my complete rim. It rises perpendicularly from the inside edge of the circular plate.

c is the outer portion of the rim, rising perpendicularly from the outside edge of the same plate, but only about half as high as the part *b*.

d is a strip of heavy leather corresponding in length with the circumference of the hollow rim, and in width with the inner part *b*, placed

in the annular groove formed by means of the parts *b* and *c* extending upward from the circular plate and base *a a*.

f f is the metal valve-seat. It corresponds in size and form with the base *a a*, and has a flange, *g*, projecting downward from its outside edge toward the flange or part *c* that projects upward from the base, as required, to cover the top portion of the leather strip *d*. The outside surface of the flange *g* is inclined, as required, to form a bearing for the flaring packing-band *h*, that is fastened to the rim of the skeleton metal bucket by placing the lower edge of the leather packing-band upon the top edge of the flange and rim part *c*, and then driving wrought-metal nails through the packing and into and through the leather strip *d*, to be turned backward and clinched by their pointed ends coming in contact with the inner flange and rim part, *b*, as shown in Fig. 5.

k is a butterfly-valve formed complete in one piece from suitable leather.

m m are metal plates or blocks that correspond in form with the leaves of the valve and are fastened on their top sides.

n is a perforation in the center of the valve.

r is the metal rod socket. It has forked branches *s* at its lower end.

t is the T-shaped clamping device, formed integral with the lower ends of the branches *s*. Its vertical portion has a screw-thread cut on its lower end. By passing this screw-threaded end of the clamping device downward through the central perforations in the valve, the valve-seat, and the base, and then placing a nut thereon and drawing it tight, the socket, the valve, the valve-seat, and the base and rim will all be clamped and locked together, and the leaves of the valve hinged on top of the valve-seat, as required to complete the bucket. By removing the nuts the three distinct parts of my skeleton metal bucket can be readily separated, and the valve and packing-band and leather strip detached and new ones put in their places whenever necessary.

I am aware that a flat leather plate or ring has been clamped fast between the upper and lower sections of a metal bucket in such a manner as to allow nails to be driven between the metal sections and into the leather section for the purpose of securing a packing-band to the

periphery of the metal frame; but my manner of forming an annular chamber in the metal sections, and inclosing a strip of leather therein, allows nails to pass through the leather strip to engage the metal wall of the annular chamber, and to be thereby doubled back into the leather and clinched, and is novel and greatly advantageous in securely fastening a flexible packing-band to the rigid metal bucket frame.

I claim as my invention—

1. In a pump-bucket, the base-piece *a b c*, the valve-seat *f g*, the leather strip *d*, and the packing-band *h*, constructed, arranged, and combined substantially as shown and described, for the purposes specified.

2. The combination of a piston-rod socket having a T-shaped clamping device on its lower end, a flexible butterfly-valve having a

central perforation, and the valve-seat of a pump-bucket, having a corresponding central perforation, substantially as shown and described, for the purposes specified.

3. An improved pump bucket and valve composed of the following elements, to wit: the metal base *a a*, having annular flanges or rims *b* and *c*, the valve-seat *f f*, having a flange, *g*, on its under side, the leather strip *d*, the flexible packing-band *h*, the flexible butterfly-valve *k*, and the rod-socket *r*, having a T-shaped clamping device on its lower end, substantially as shown and described, for the purposes specified.

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