

(No Model.)

H. R. FRISBIE.
VALVE HANDLE.

No. 604,696.

Patented May 24, 1898.

Fig. 1.

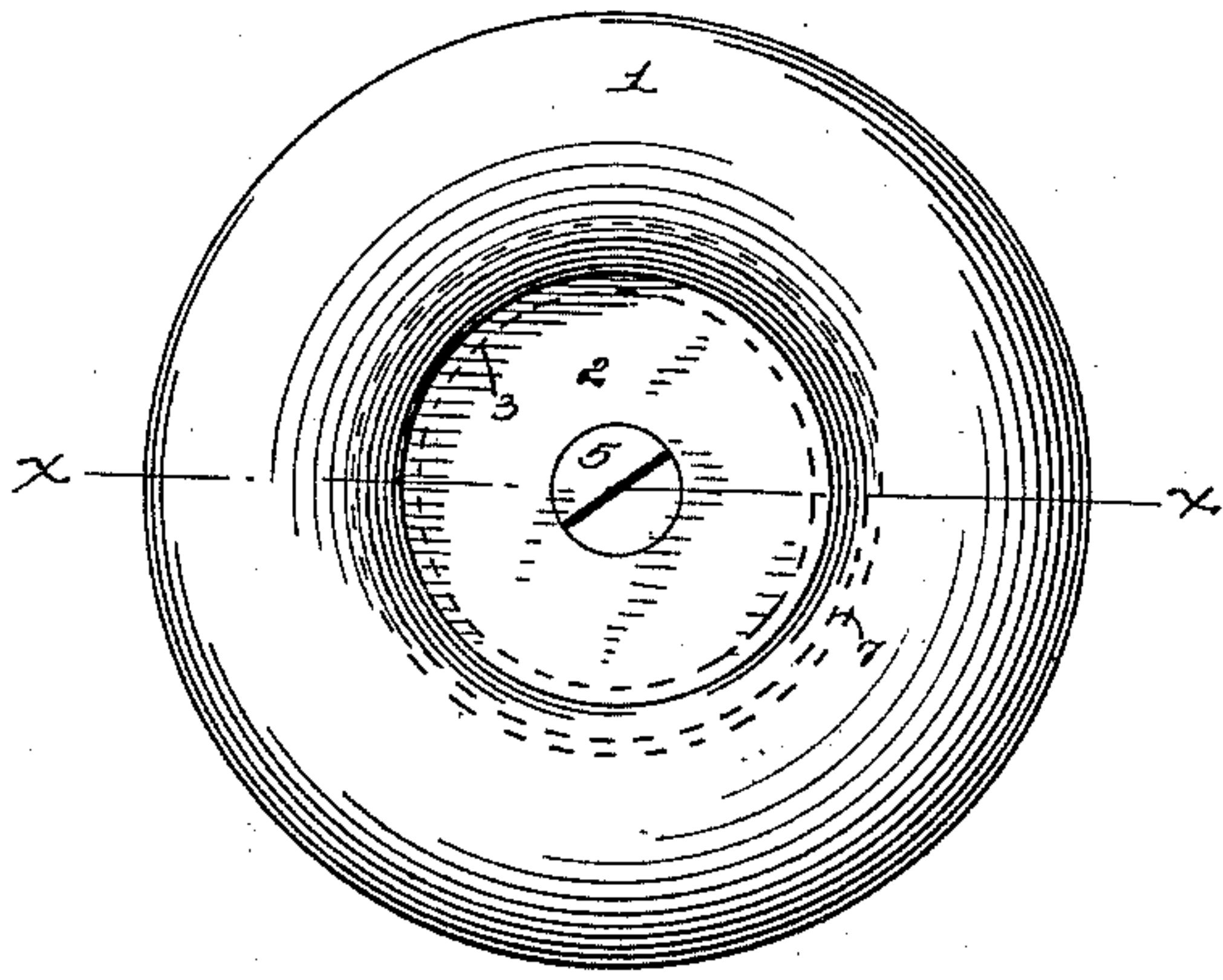


Fig. 2.

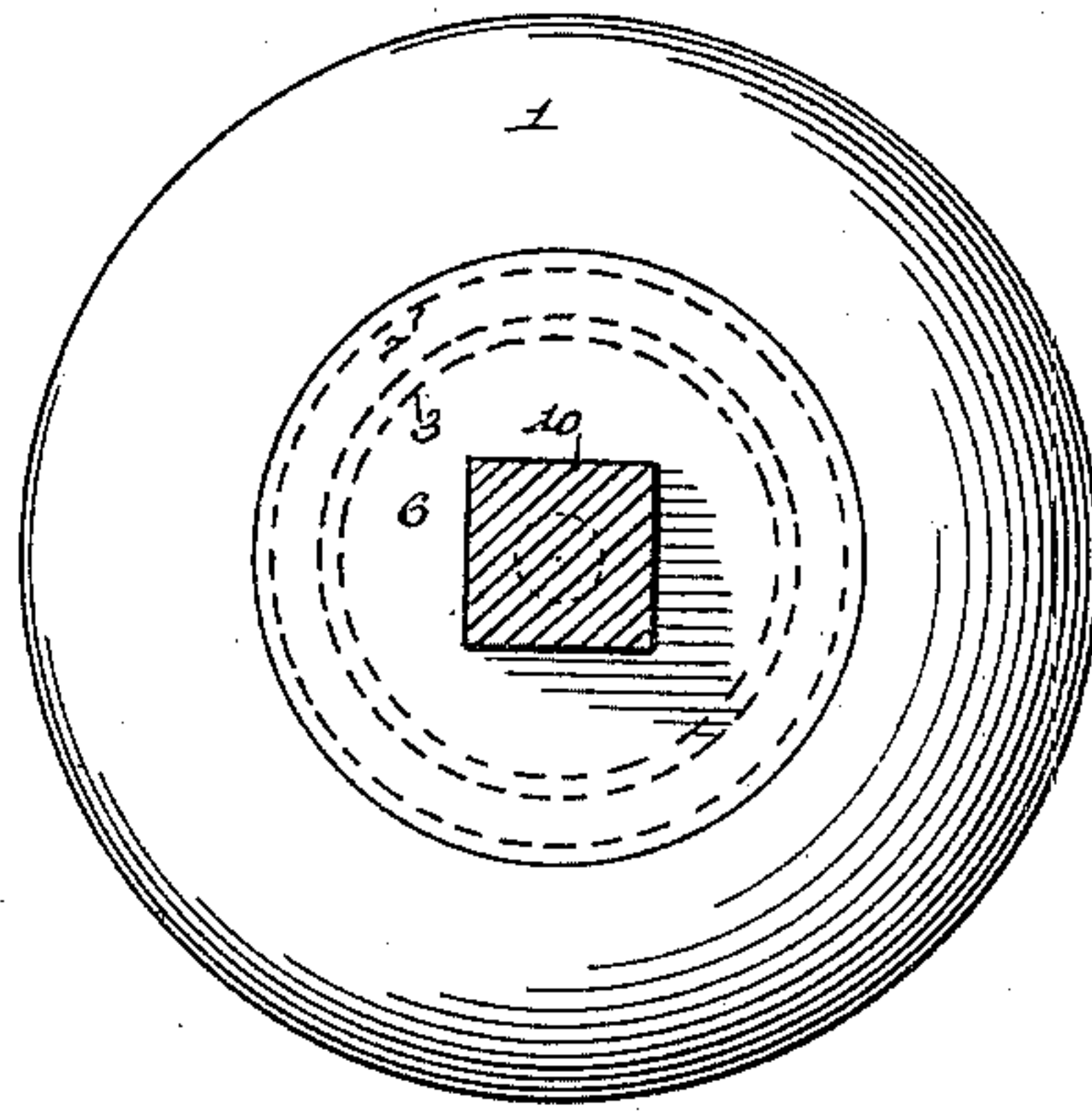


Fig. 3.

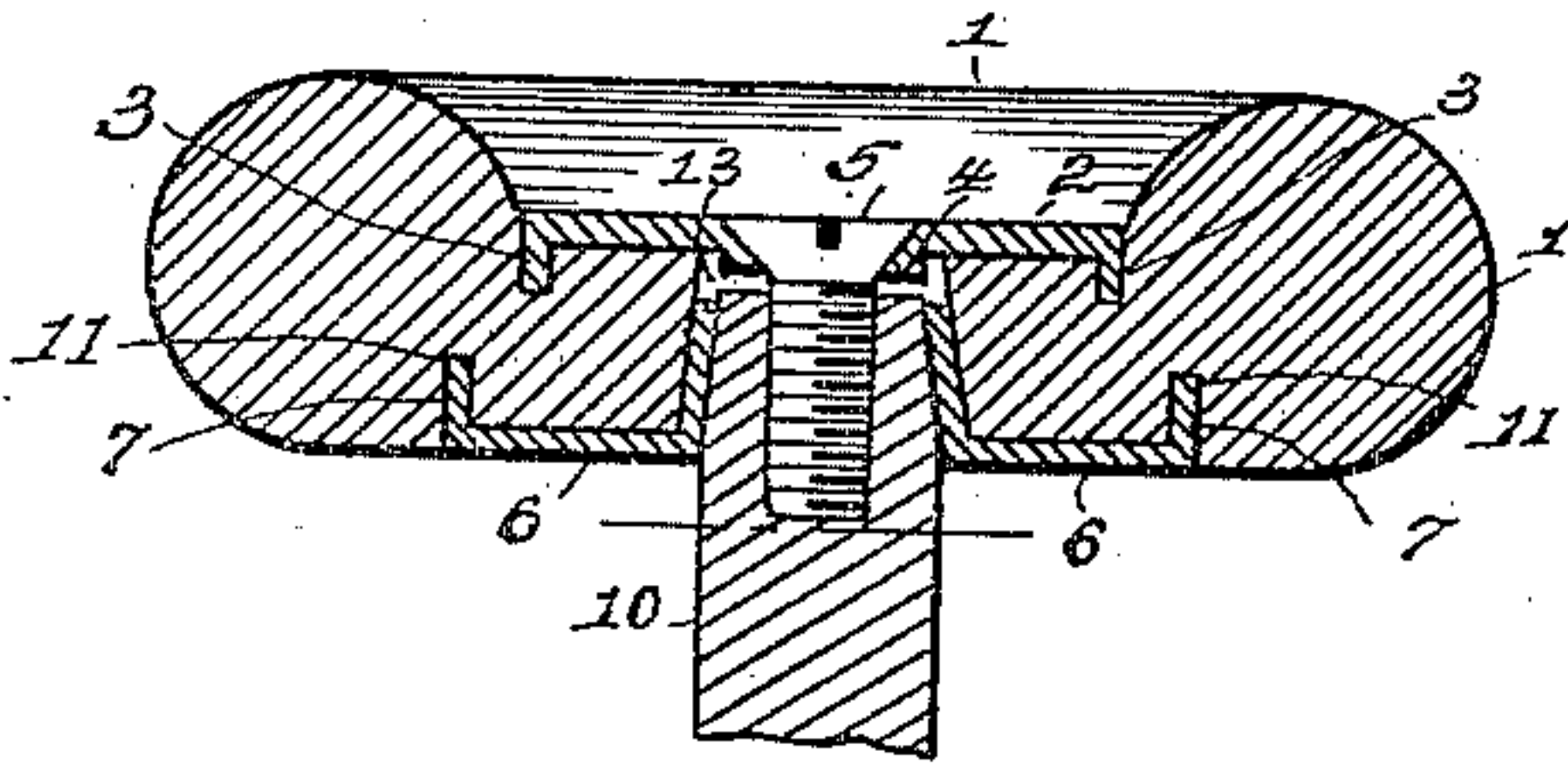


Fig. 4.

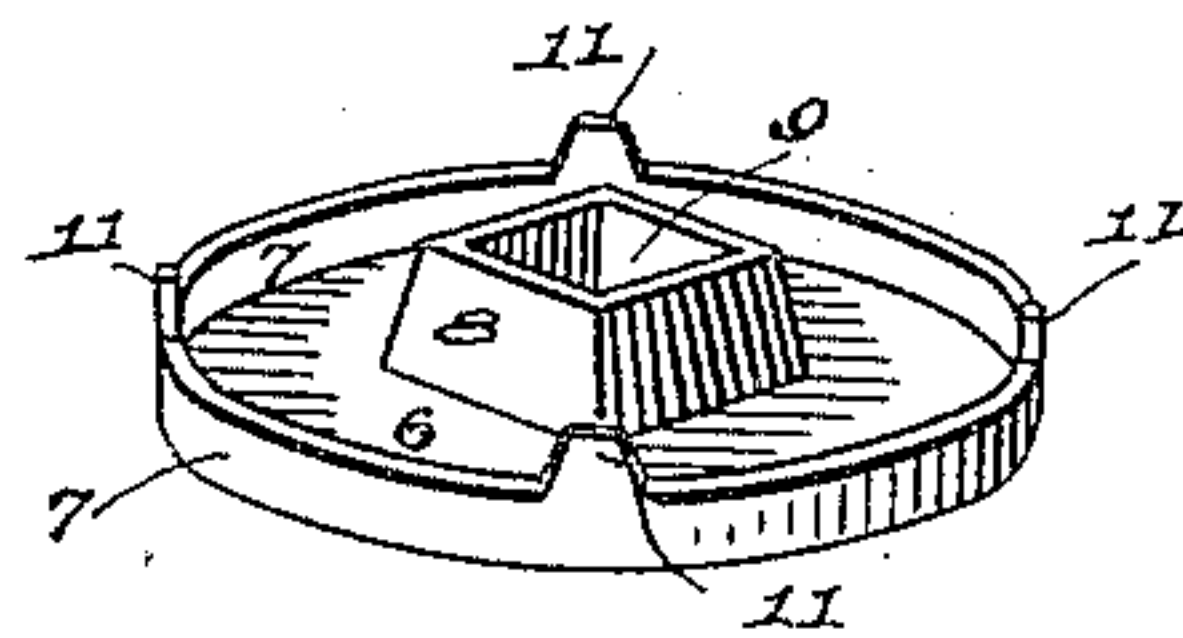


Fig. 5.

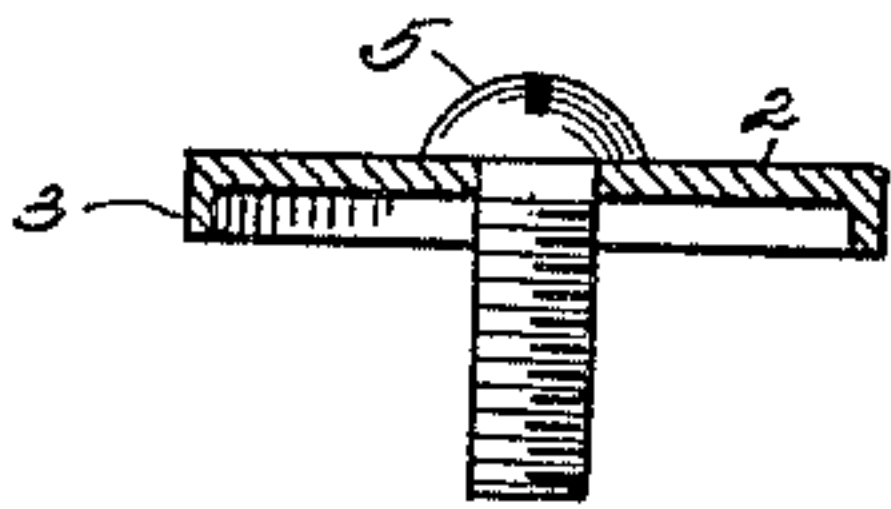
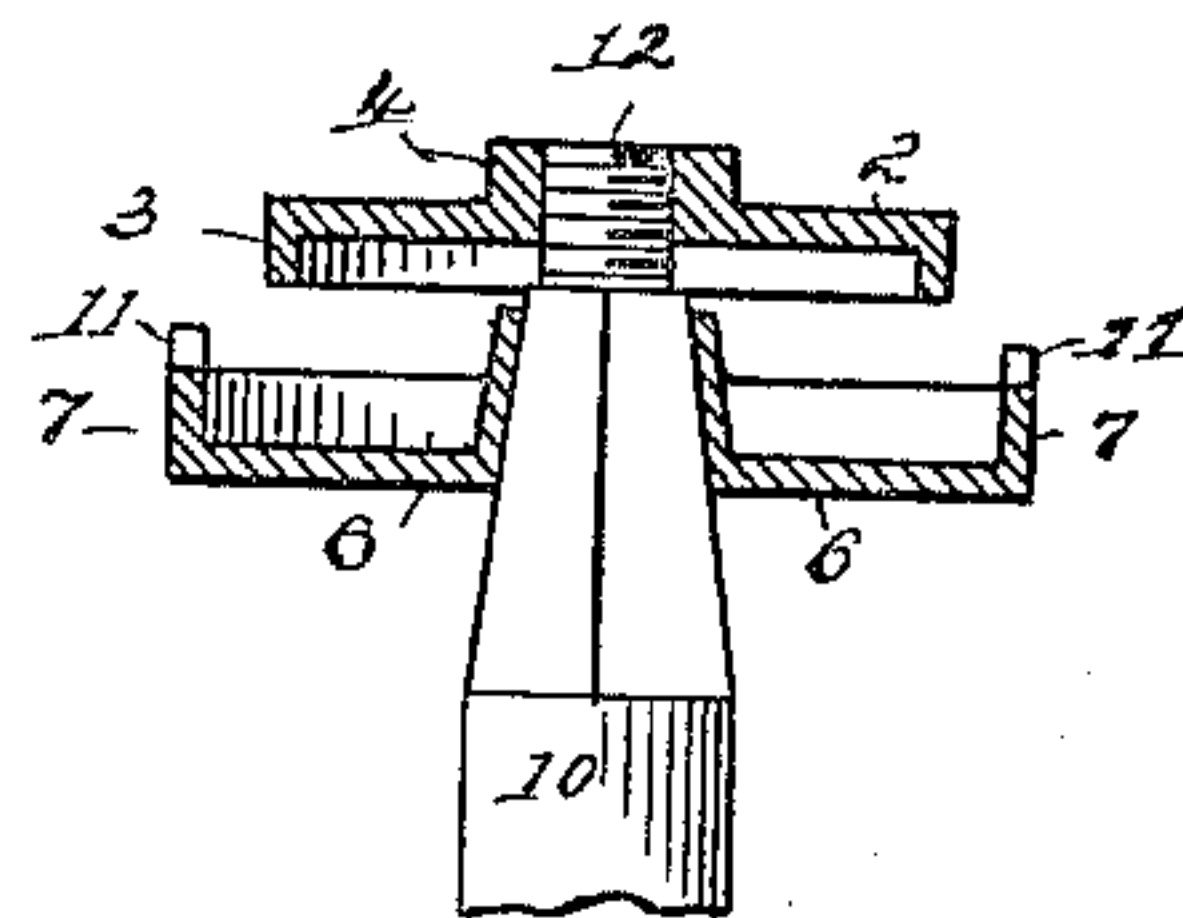


Fig. 6.



Witnesses

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UNITED STATES PATENT OFFICE.

HENRY R. FRISBIE, OF BELLEVILLE, NEW JERSEY, ASSIGNOR OF ONE-HALF
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VALVE-HANDLE.

SPECIFICATION forming part of Letters Patent No. 604,696, dated May 24, 1898.

Application filed June 30, 1897. Serial No. 642,919. (No model.)

To all whom it may concern:

Be it known that I, HENRY R. FRISBIE, a citizen of the United States, and a resident of Belleville, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Valve-Handles, of which the following is a specification.

My invention relates to handles for valve-spindles; and it consists in certain details of construction to be more fully described in the following specification, whereby the breaking of the wooden handle of the valve-spindle is not only prevented to a great extent, but when accidentally broken it cannot fall off.

To enable others to fully understand my invention, reference is had to the accompanying drawings, in which—

Figure 1 represents an upper plan view of a wooden handle, top retaining-plate, and retaining-screw. Fig. 2 represents the reversed side of the wooden handle, bottom retaining-plate, and sectional view of the valve-spindle. Fig. 3 is a central sectional view through line *x* of Fig. 1. Fig. 4 is a detail perspective view of the bottom retaining-plate. Fig. 5 is a detail central sectional view of the top retaining-plate, showing the use of a round-headed holding-screw. Fig. 6 is a central sectional view of the upper and lower retaining-plates, showing a modified construction for attaching the upper plate to the valve-spindle.

Its construction and operation are as follows:

1 is the wooden handle, having a central depression to receive the top retaining-plate 2. This plate is provided with the downward-projecting flange 3, adapted to enter a concentric groove formed in the upper face of said handle. The central portion of this plate is provided with the boss 4, through which boss and plate is formed a hole to admit the screw 5, the countersunk head of which fits a countersink in the said plate and boss. The lower plate 6 has also the upturned flange portion 7, adapted to fit a concentric groove formed in the bottom surface of the wooden handle. This latter groove, it will be observed, (see Fig. 3,) is much larger in diameter than the upper one to receive the flange 3 of the upper plate and for obvious reasons, for if the two grooves were exactly opposite

each other, or nearly so, it would serve to greatly weaken the central portion of the handle. The central portion of this lower plate is also provided with rectangular flange 8, surrounding the square hole 9, to admit the square end of the valve-spindle 10. 11 are projections or retaining-points (see also Fig. 4) rising from the flange 7, adapted to enter holes at the bottom of the lower groove of the handle, whereby such handle is protected against rotation independent of the spindle.

The upper part of such spindle is provided with a threaded hole to receive the screw 5, before mentioned. If desired, this screw may be dispensed with by simply spreading the end of the valve-spindle and having such threaded end 12, Fig. 6, engage a threaded hole in the upper plate 2, in which case, if desired, the boss 4 may be reversed. The better plan, undoubtedly, would be that shown at Figs. 1, 2, and 3, where there are no projections above the plate 2 to come in contact with the handle, especially when the metal parts have become more or less heated.

The square hole 13, Fig. 3, in the wooden handle to receive the flange or curb 8 of the lower retaining-plate will also serve very effectually in preventing the turning of such handle.

The construction as above described makes not only a cheap but a durable handle, for should the wooden handle become accidentally cracked or even split entirely in halves it cannot fall away. It is also a very important and economical feature in assembling the wooden handles to the valve-spindles in the factory, as it has been the practice heretofore to bring the taper hole in such wooden handle directly in contact with the spindle, and consequently in forcing them thereon quite a large percentage of such handles are destroyed by splitting, while with the flange projection or curb of the lower plate lining the tapered hole in the wooden handle there is no strain whatever on the wood.

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

1. The combination, in a valve-spindle handle of the character described, of a wooden handle portion provided with a concentric

groove in its upper and lower face, said
grooves of different diameters, so as to avoid
weakening such wooden portion, retaining-
plates provided with flanges bent at right an-
5 gles to said plates, said flanges adapted to en-
ter said grooves so as to support such wooden
portion, in case of accidental breakage, said
bottom plate having a hole to admit a valve-
spindle, a flange rising from the inner surface
10 of said plate and surrounding said hole, for
the purpose set forth.

2. The combination, in a valve-spindle han-
dle of the character described, of a wooden
handle portion provided with concentric
15 grooves of unequal diameters, as shown, up-
per and lower retaining-plates provided with
flanges to enter said grooves, projections on

the edge of the flange of the lower retaining-
plate, adapted to enter holes in the bottom of
the lower groove of the wooden handle, a 20
square curb having a square hole there-
through, rising from the central inner surface
of said lower plate to admit the valve-spindle
and support the wooden handle, also having a
square hole to fit said curb, means substan- 25
stantially as shown for securing said handle
to the spindle, for the purpose set forth.

Signed at Bridgeport, in the county of Fair-
field and State of Connecticut, this 28th day
of June, A. D. 1897.

HENRY R. FRISBIE.

Witnesses:

JOHN B. CLAPP,
M. J. KEANE.