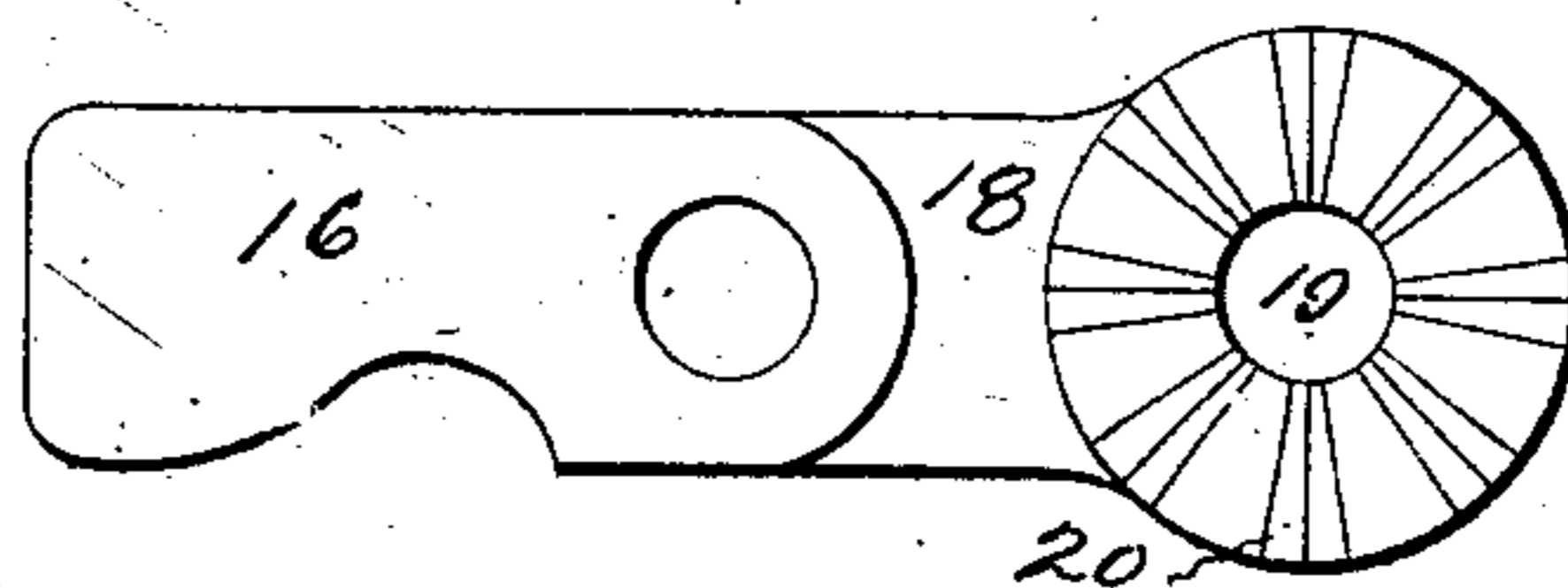


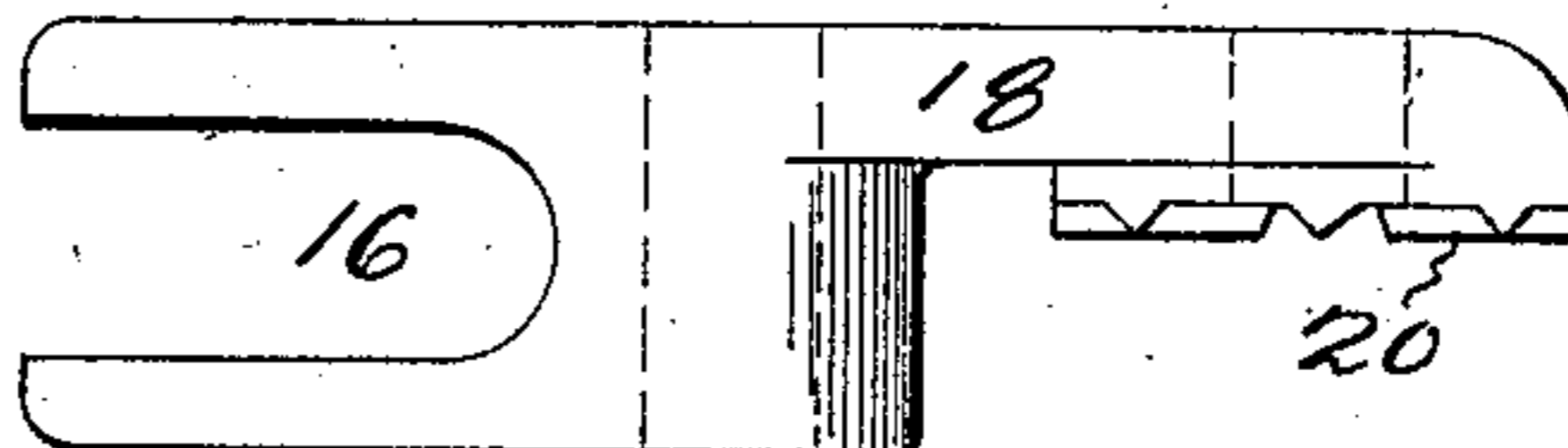
BALL COCK.

951,172.

Patented Mar. 8, 1910.



F, G. 3



Howard I. Bokorik
Josephine M. Stremper

Frederick Biedenstein
Harry P. Williams atty.

UNITED STATES PATENT OFFICE.

FREDERICK BIEDENMEISTER, OF NEW YORK, N. Y., ASSIGNOR TO GOOD MANUFACTURING COMPANY, OF NEW YORK, N. Y., A CORPORATION OF INDIANA.

BALL-COCK.

951,172.

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Patented Mar. 8, 1910.

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To all whom it may concern:

Be it known that I, FREDERICK BIEDENMEISTER, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented a new and useful Improvement in Ball-Cocks, of which the following is a specification.

This invention relates to the construction of a ball cock or tank valve, that is, one of those articles which are arranged in a tank, and are provided with a float by which the valve is opened to admit a fresh supply when the level of the water in the tank is lowered, and the valve is closed to stop the inflow when the level of the water in the tank is restored.

The object of this invention is to provide a very simple and cheap ball cock, of the balanced type, that is, one in which the water pressure is exerted oppositely on both ends of the spindle, so that the valve will be sensitive and can be opened quickly and closed tightly by a small ball or float.

Figure 1 of the accompanying drawings shows a central section of a balanced ball cock which embodies this invention. Fig. 2 shows a side view and Fig. 3 shows an edge view of the yoke which engages the spindle, and to which the stem of the ball or float is designed to be adjustably attached.

The cock shown has a tubular stem 1, which is designed to extend through the bottom or side wall of a tank. This stem has an exterior thread upon which the usual nuts may be turned for securing the cock in place, and upon which the coupling used to connect it with the water supply pipe, may be turned. The stem at one end has a cup 2, which surrounds the seat 3 that is formed at that end of the passage through the stem. Screwed into an interior thread, cut in the cup, is the large end of the casing, which comprises an enlarged cylindrical section 4 and a reduced cylindrical section 5. In one side of the enlarged section of the casing is a threaded opening 21, into which a bib may be screwed. The bib may be straight, as shown by the dotted lines 6, or curved, as shown by the dotted lines 7, according to desire. In one side of the

reduced section of the casing is an opening 8, and extending outwardly, each side of this opening, is an ear 9. The top of the reduced section is tight.

The spindle 10 has a straight perforation 11, which extends centrally from end to end. This spindle is shaped to loosely fit the bore of the reduced section of the casing. A seat washer 12 is secured to the lower end of the spindle by a perforated screw 13, and a cup packing 14 is secured to the upper end of the spindle by a perforated screw 15. The spindle is cut down to reduce it in diameter about midway of its length, and embracing the reduced portion, and having its edges engaging the shoulders formed by the reduction, is a fork 16. This fork is held by a pivot 17, that extends through the fork and perforated ears which project from the reduced section of the casing each side of the opening therein. Projecting from the fork is an arm 18 with a perforation 19 for the passage of the screw or bolt used to secure the end of the float rod to the arm. The surface of the arm about the perforation is roughened, or provided with teeth, 20 in order that the end of the float rod may be securely held in the desired relation when attached to the arm.

This cock has few parts, is very cheap to construct, and is efficient and durable in use.

The invention claimed is:

A ball cock having an exteriorly threaded tubular stem with a seat at one end and an interiorly threaded cup surrounding the seat, a casing comprising an enlarged section, screwed into the cup, said section having a threaded opening in one side, and a reduced section, with a closed upper end, said section having an opening in one side and a perforated ear projecting each side of said opening, a spindle with a reduced intermediate portion, loosely fitting the bore of the reduced section of the casing, said spindle having a central perforation extending in a straight line from end to end, a seat washer at the lower end of the spindle, a perforated screw holding the seat washer in position, a cup packing at the upper end of the spindle, a perforated screw hold-

ing the cup packing in position, a yoke pivoted between the ears and extending through the opening in the reduced portion of the casing and engaging the shoulders formed by the reduction of the middle of the spindle, and an arm projecting from the yoke, said arm having a perforation for the at-

tachment of the end of a float rod and means for holding the end of the float rod securely after it has been fastened.

FREDERICK BIEDENWEISTER.

Witnesses:

W. E. BOENNEL, Jr..

T. RICHARDSON.