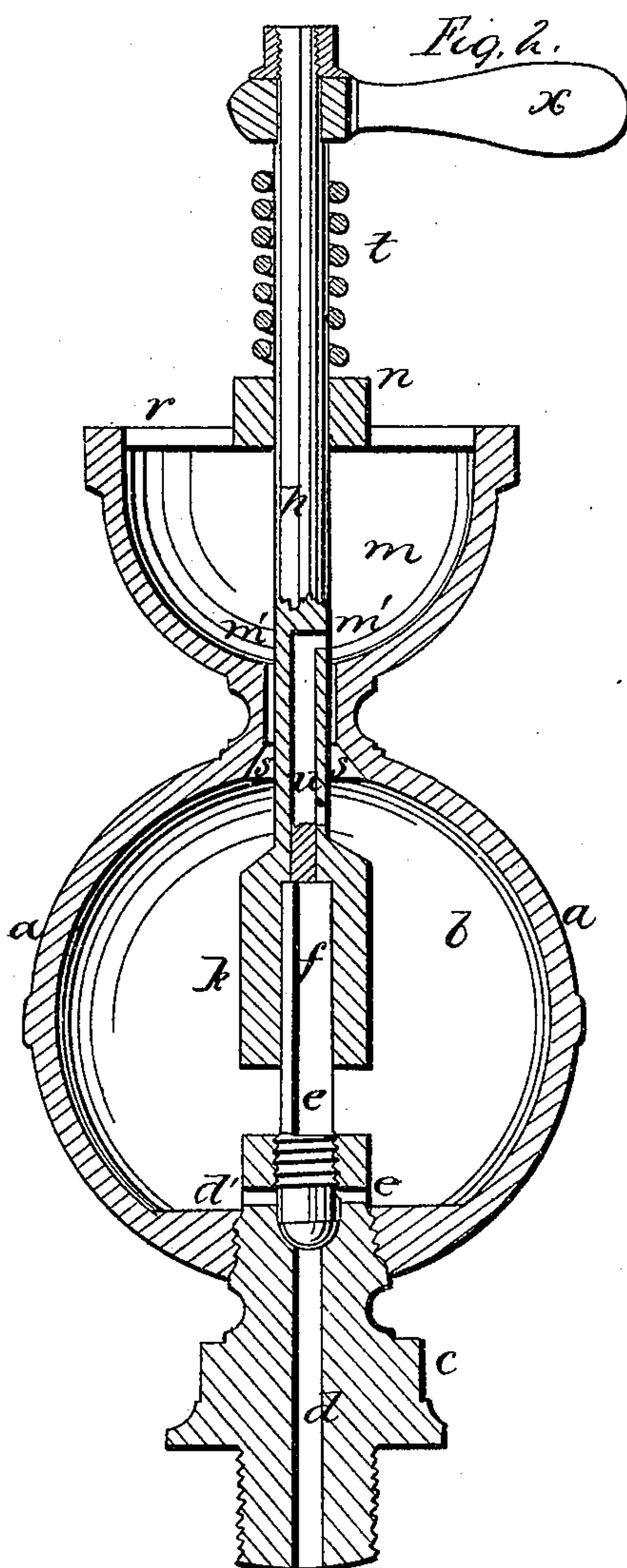
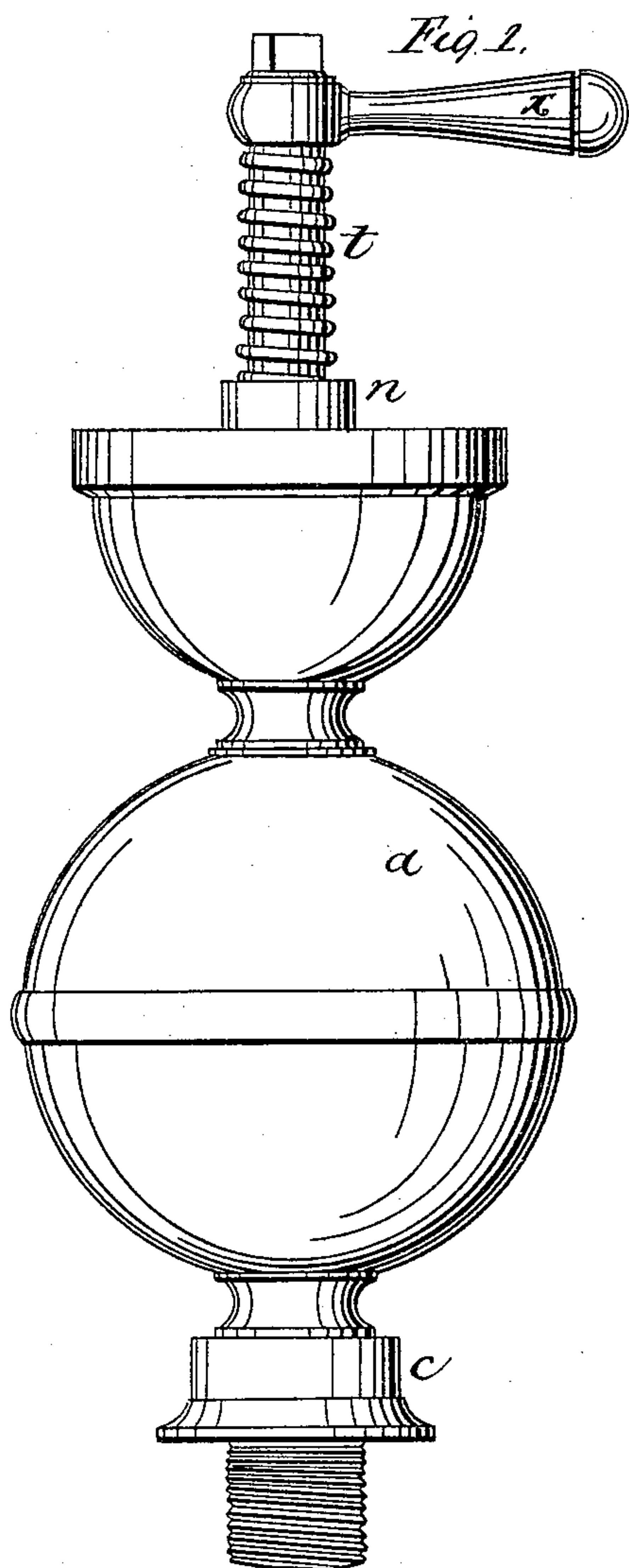


Ross & Holland

Lubricator

N^o 20,665.

Patented June 22, 1858.



UNITED STATES PATENT OFFICE.

R. ROSS AND W. HOLLAND, OF PHILADELPHIA, PENNSYLVANIA.

OIL-CUP FOR MACHINERY.

Specification of Letters Patent No. 20,665, dated June 22, 1858.

To all whom it may concern:

Be it known that we, ROBERT ROSS and WM. HOLLAND, both of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented an Improvement in Oil-Cups, and that the following is a full, clear, and exact description of the principle or character which distinguishes it from all other things before known and of the usual manner of making, modifying, and using the same, reference being had to the accompanying drawings, of which—

Figure 1 is a perspective view of the oil cup; Fig. 2, a vertical middle section.

Our invention consists in an improvement in oil cups for feeding oil to steam cylinders and other parts of machinery under pressure, described and represented as follows.

a is a hollow metallic ball or globe forming what we denominate the intermediate chamber b . To the lower part of this globe is attached a screw plug c , for insertion into the steam cylinder or other part to be lubricated under pressure. This plug has a passage d through its axis, through which oil is introduced into the cylinder. At the upper part of passage d is a valve seat adapted to the lower end of the valve plug e , and the passage d communicates with chamber b by the lateral passages d' , e' . The valve plug e has a screw thread upon its lower portion which works in a thread cut in the upper part of the screw plug c . The upper portion f of the valve plug e is made of square or polygonal form, to fit the corresponding bore of the key portion h of the spring valve rod or stem h , by which the screw valve is to be turned back and forth and thus opened and closed.

The globe a is surmounted by an open cup m into which the oil is to be first poured, to be fed into the chamber b , through the passage m' which continues from the bottom of this cup to the chamber b . The valve stem h passes through passage m with

sufficient space around the stem to admit the free flow of oil to chamber b . The upper part of the stem passes through a collar n on the bridge piece r which extends across the top of the cup. The upper part of the key portion h of the stem h , is made conical to fit the valve seat s in the upper part of chamber b . The spiral spring t presses the stem upward and closes valve s .

When oil is to be introduced into the intermediate chamber b , the stem is forced downward and the oil poured into cup m flows down around the stem while the air from chamber b escapes upward through the passage u in the stem h , the steam passage d having been previously closed up by the valve e . When sufficient oil has been introduced into chamber b , the stem h is allowed to rise and close the valve s by the action of spring t and by then turning the handle x in the proper direction the key h unscrews and raises valve e and allows the oil to flow into the steam cylinder, the previous closing of valve s preventing the escape of steam. When sufficient oil is introduced, the valve e is closed, valve s remaining always closed except when the stem h is depressed.

What we claim as our invention and improvement in oil cups is—

1. The combination of the spring valve stem h with the screw valve e in the intermediate chamber b as set forth each operating in conjunction with, and at the same time independently of the other to the extent and in the manner herein above set forth.

2. We also claim the air passage u , within the stem h , in combination with the oil passage m' around the stem h , in the manner set forth.

ROBERT ROSS.
WILLIAM HOLLAND.

Witnesses:

GEO. MOORE,
JACOB S. MCCARRA.