C. S. Harris

Stop Cock,

No. 13,128, Patented June 26, 1855.

Fig: 1

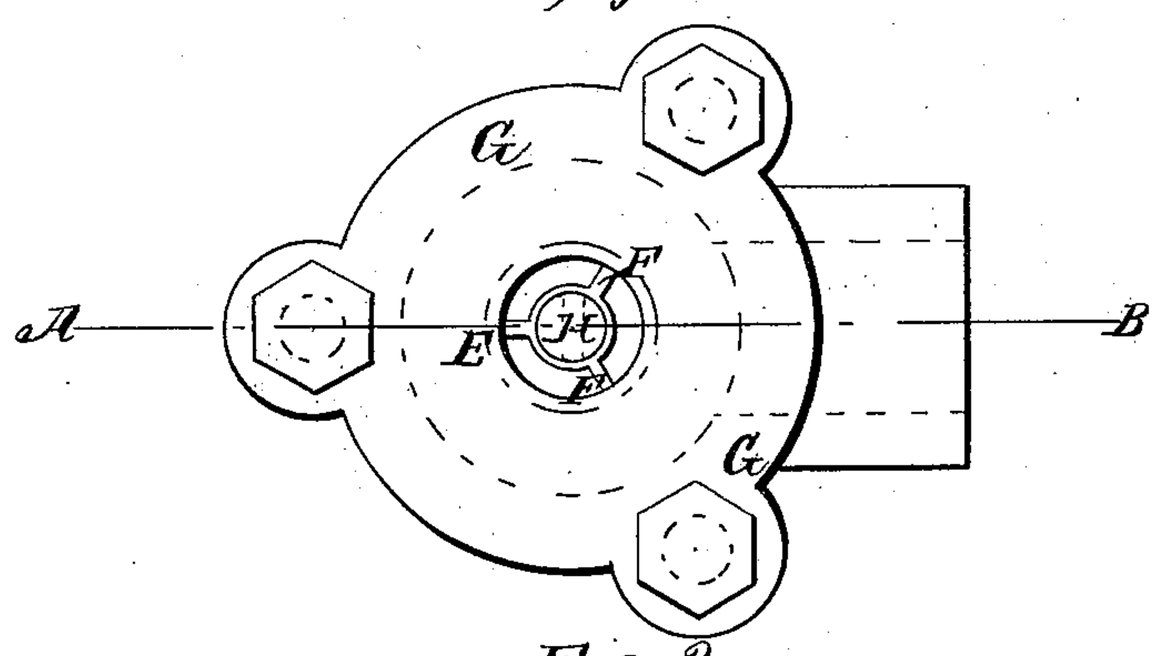
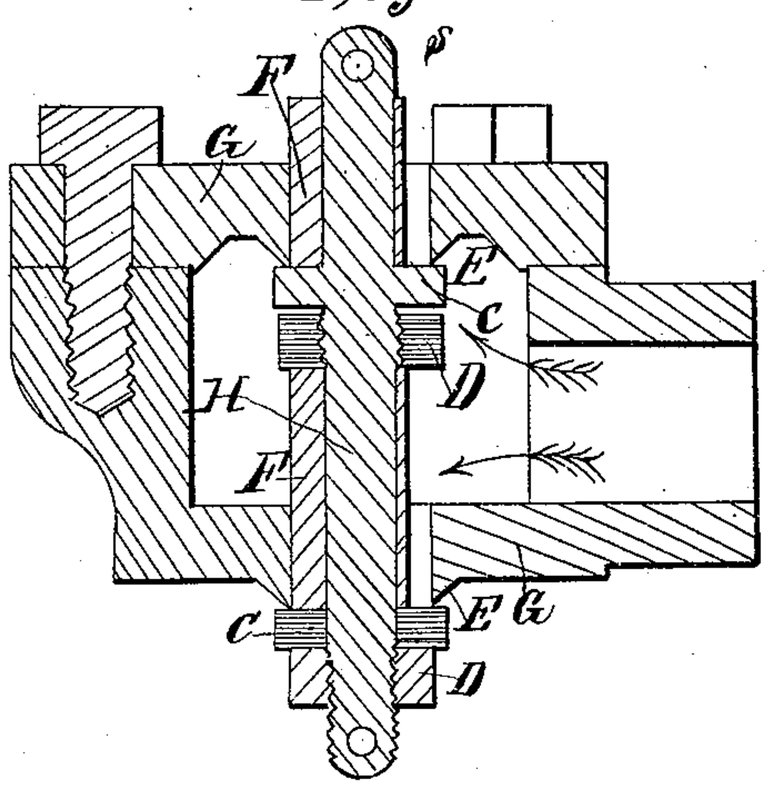


Fig: 2



UNITED STATES PATENT OFFICE.

CHARLES S. HARRIS, OF HOLYOKE, MASSACHUSETTS.

BALANCE-VALVE.

Specification of Letters Patent No. 13,128, dated June 26, 1855.

To all whom it may concern:

Be it known that I, CHARLES S. HARRIS, of Holyoke, in the county of Hampden and State of Massachusetts, have invented a compensating valve in which the pressure on one side is counterbalanced or compensated by that on the other, so that it may be operated or opened and closed under great pressure as easily and with as little power as without pressure; and I do hereby declare that the following is a full and exact description, viz:

Figure 1 in the accompanying drawing is a plan of said valve, and Fig. 2 is a section at A, B, with parts beyond; similar letters referring to like parts.

The stem H, Fig. 2 has two valve surfaces C, C, capable of being adjusted by means of the screws D, D, so that when the valve is closed (which is the position shown in Fig. 2,) both surfaces rest on the two feather edged valve seats E, E. The valve is kept in place by means of the guides F, F, F. It will thus be seen that when the pressure acts on the inside of the casing or box G, in the direction of the arrows, it will, owing to the arrangement of the feather edged valve seats, act on equal surfaces and thus the pressure on either surface will be compensated or counterbalanced by the pressure in an opposite direction on the other, and the valve will remain at rest in any position without being affected by any pressure whether on the inside or outside of the casing or box. This valve may be applied advantageously to many purposes, one of which is its application to steam boilers for regulating the supply of water, the valve requiring no packing and being easily moved by a float attached to one end at S.

What I claim as my invention and desire to secure by Letters Patent is—

The combination of the two valve surfaces acting on the two feather edged valve seats, one inside and the other outside the casing or box in such a manner that the pressure in one direction on one is compensated by an equal pressure in an opposite direction on the other, so that the valve will remain in a state of rest without being affected by any pressure whether on the inside or outside of the casing or box.

CHARLES S. HARRIS.

Witnesses:

J. M. HARRIS,

ARTEMUS NEWELL.