S. B. HUNT.

Cut-Off for Ice-Making Apparatus.

No. 216,040. Patented June 3, 1879.

Fig. 1.

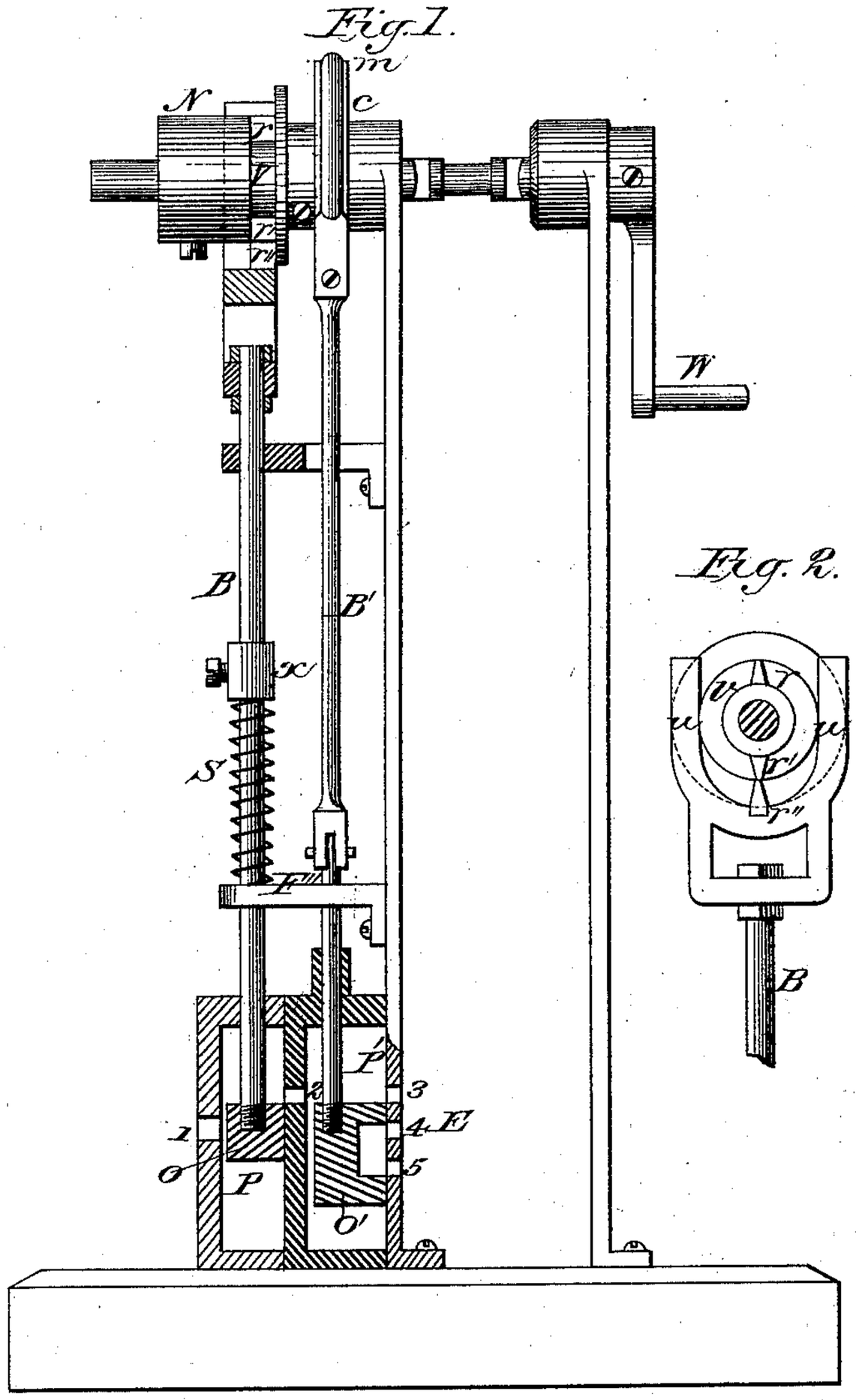

Fig. 2.

Witnesses:

James J. Thornley

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UNITED STATES PATENT OFFICE

SIMON B. HUNT, OF NEW YORK, N. Y.

IMPROVEMENT IN CUT-OFFS FOR ICE-MAKING APPARATUS.

Specification forming part of Letters Patent No. **216,040**, dated June 3, 1879; application filed December 3, 1878.

To all whom it may concern:

Be it known that I, SIMON BENTON HUNT, of the city of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Cut-Offs for Ice-Making Apparatus; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in the mode of regulating the discharge of compressed atmospheric air from the compressing-tubes into the expanding-engine preparatory to it (the air) being discharged broadcast into the ice-chamber or refrigerating-room by the application of a suitable cut-off, as shown in the drawings.

Figure 1 represents a side elevation, showing a vertical section of the compressed-air chest P P′, the valves in which are operated by suitable mechanism, to admit of a supply of compressed air into an expanding-engine located at E.

In order to produce the requisite reciprocating action of the engine, the valves *o o′* of which open and close the ports 2 3 4, I employ the rods B and B′, the former of which is provided with an open or pronged head in the shape of the letter **U**, having an upward-projecting tooth, *r″*, in the center of the pronged head, which is brought in contact with corresponding teeth *r r′*, formed in a groove, *v*, opposite to each other on the shaft N, so that by the revolution of the shaft they will cause the tooth *r″* and the head *u u* to be forced downward; but to force the head in the opposite direction the collar *x* and rod B compress the compensating-spring S, which surrounds the rod, between the said collar and a stationary arm, F″; and by this construction the rod B and cut-off valve *o* are forced upward, to be again forced downward by the projecting teeth *r r′*, and vice versa.

The rod B′ is secured to the reciprocating cut-off valve *b′*, so that both are operated up and down by means of a circular loop or band, *m*, secured to the upper end of the reciprocating-rod, B′, and passing over the eccentric *c* on the shaft N, the whole being worked by the crank or other power, W.

Fig. 2 is a front view of the pronged head *u u*, secured to the upper section of the rod B, and showing the tooth *r′* in the act of forcing the tooth *r″* and the rod B downward.

Having described the different parts of my working cut-off for the purpose of admitting compressed air in an expanding-engine, I claim—

In valve-gear for engines, the chests P P, provided with cut-off valves *o o′*, rods B B′, pronged head *u u*, provided with tooth *r″*, the shaft N, having groove *v*, with teeth *r r′* in said groove, the eccentric *c*, strap *m*, collar *x*, spring S, and arm F″, all constructed and arranged as shown and specified.

In testimony that I claim the foregoing as my own invention I affix my signature in presence of two witnesses.

SIMON BENTON HUNT.

Witnesses:

JAMES J. THORNLEY,

J. P. MCLEAN.