

E. A. TUTTLE.
Hot-Air Register.

No. 225,084.

Patented Mar. 2, 1880.

Fig. 1.

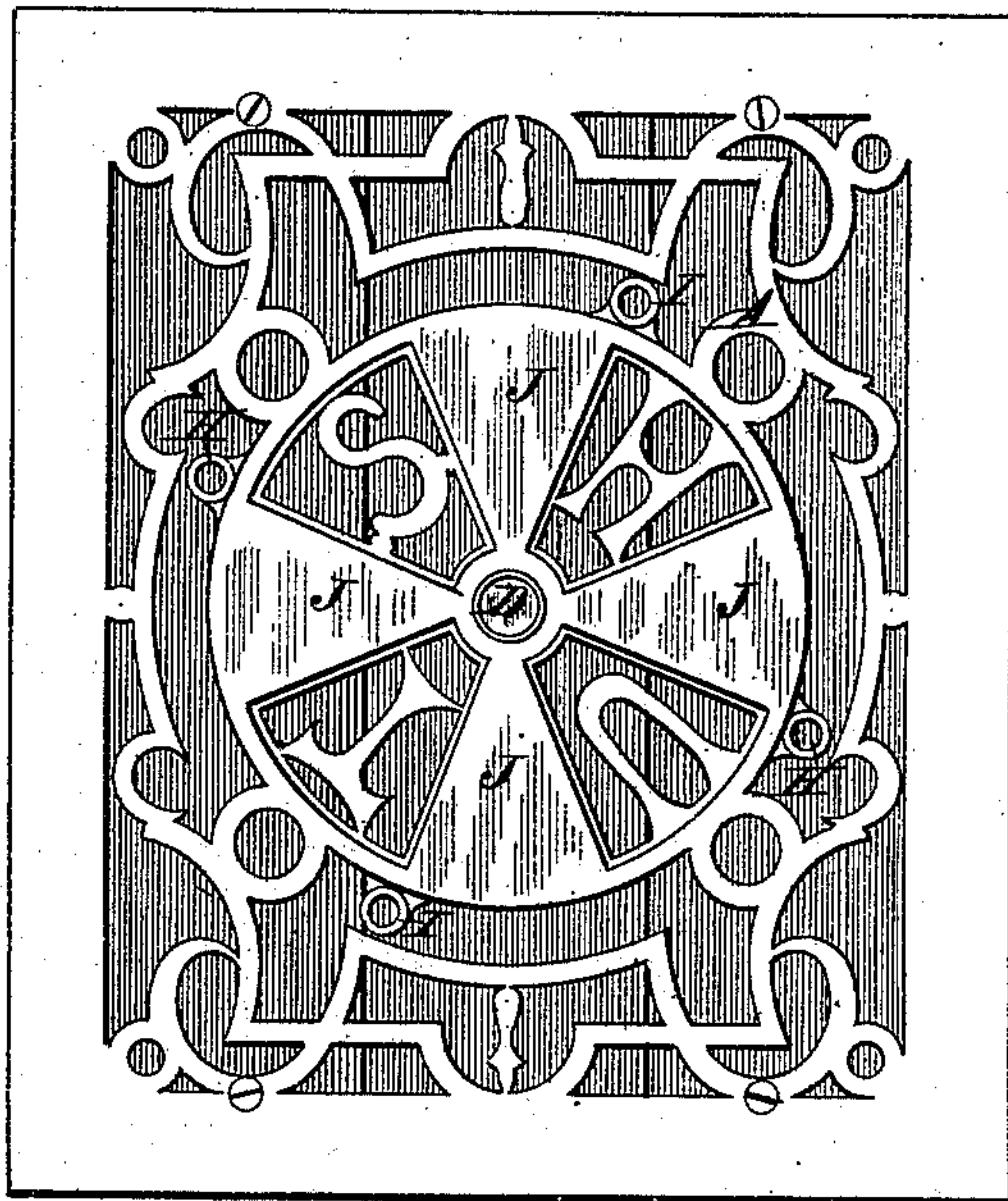


Fig. 2.

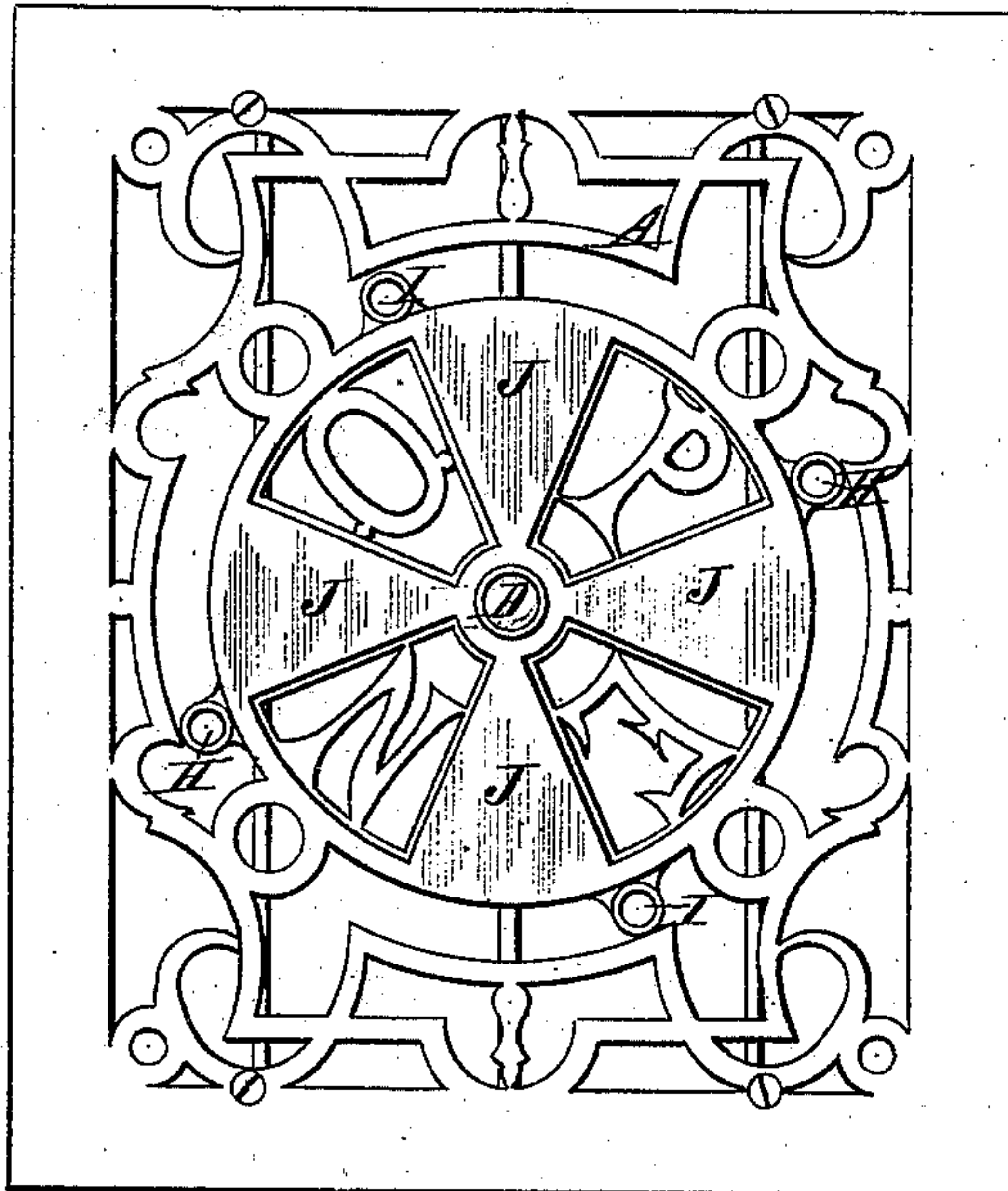
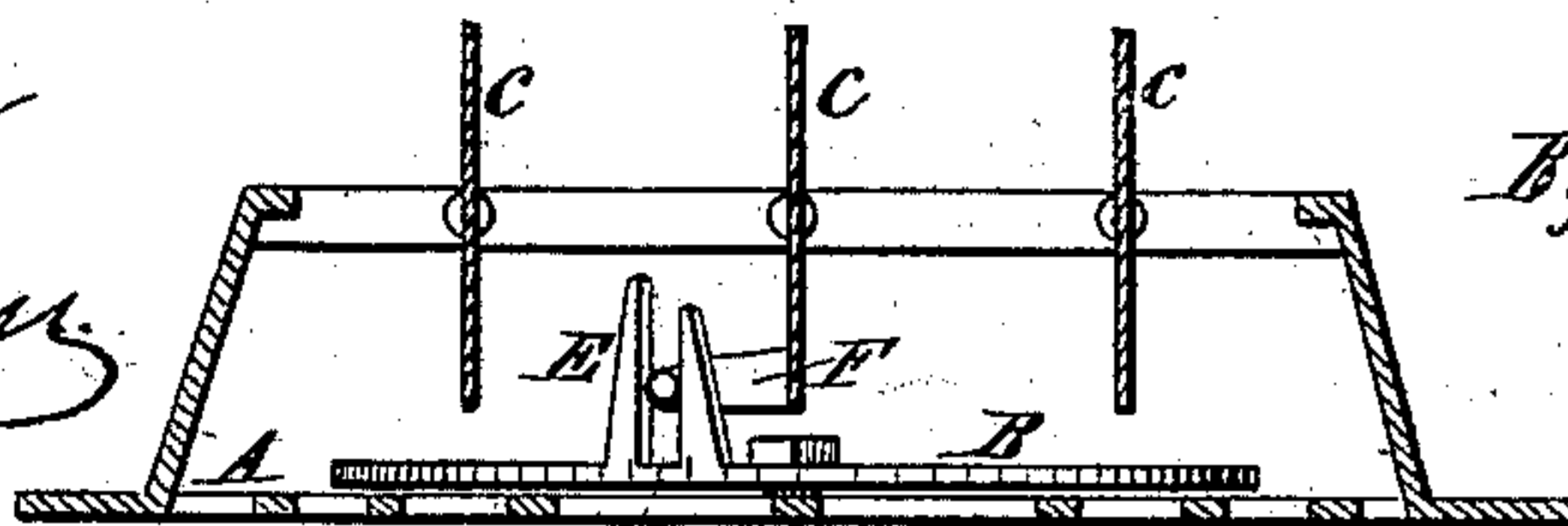


Fig. 3.

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UNITED STATES PATENT OFFICE.

EDWARD A. TUTTLE, OF NEW YORK, N. Y.

HOT-AIR REGISTER.

SPECIFICATION forming part of Letters Patent No. 225,084, dated March 2, 1880.

Application filed September 25, 1879.

To all whom it may concern:

Be it known that I, EDWARD A. TUTTLE, of New York, New York county, and State of New York, have invented a new and useful Improvement in Hot-Air Registers, which is fully shown in the following specification.

This invention is an improvement of the hot-air register for which a patent was granted to me the 24th day of September, 1878, No. 208,350, and which "consists of a fractional shut-off or register arranged for and being connected with the valves of the ordinary register, so as to open them when it is opened and close them when it is closed, and also being so arranged in the ornamental fret-work front of the register as to show clearly to the eye, and thus indicate by its own position the position of the valves which are too much hidden to be seen readily;" and the said improvement consists of the application to said fractional shut-off or register of symbols, which shall by their character or reading make still more clear and certain to the observer the state of the valves, whether open or closed, the said symbols being of two sets or kinds, one indicating "open" and the other "shut," and those indicating "open" being arranged in the open spaces of the fractional shut-off, while the others are in or upon those closed or solid parts which close the fractional shut-off when the register is closed, said parts being in alternate succession around the center, and so that one set is concealed behind the fixed part of the shut-off when the other set is exposed to view through the openings of the stationary part of said fractional shut-off. With this addition to the before-mentioned patented fractional shut-off contrivance the latter is rendered more convenient and satisfactory than before, especially as the letters or other characters forming the symbols will be gilded or otherwise colored in marked contrast with the rest of the front, thus making an indicator distinctly visible and that will be readily understood in distant parts of the room, and, being on the circular device, will be alike readable whether the register be placed with the end or side uppermost.

Figure 1, in the accompanying drawings, is a front elevation of a register with my improved indicator, showing the valves open. Fig. 2 is a front elevation, showing the valves shut; and Fig. 3 is a horizontal section, showing the connection of the indicator device with the valves.

A is the open fret-work front of the indicator, in the central portion of which is the circular device B for operating the valves C, which turns to and fro on the pivot D, being connected to one of the valves by its crotched projection E and the crank F on the valve, and is operated by the cords G, which are attached to its projections H or I, according as the register is placed with its end or side upright.

J represents the part of the front behind which the symbols are to be concealed. It represents four equal sectors of one-eighth each of the whole circle, which sectors are located equidistant from each other with equal spaces between them.

The operating-wheel B turns about one-eighth of its complete circuit in operating the valves, and it is divided into eight spaces, four of which are figured with the letters "S H U T" alternately with the other four, which are figured with the letters "O P E N," whereby the cover J will conceal the letters of one word while exposing the others to view, according as the device B is shifted one way or the other. These two words of four letters are the most applicable to describe the condition of the valves, and likewise they are most suitable for the wheel B, as they correspond in number with the number of the spaces of the wheel, the open spaces, and the cover J, and they are therefore most preferable for use; but, of course, other letters or characters may be used, or the initial letter of each word repeated three times may be preferred.

Instead of having the part of the front on which the symbols are fixed to move the valves, it may be stationary, and the cover may be the movable part by which the valves are actuated.

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

A fractional shut-off in or upon the front of a register, combined with the valves of the latter, and opening and closing in unison therewith, and having two sets of symbols to indicate the condition of the valves, whether open or shut, one of which is concealed from view and the other is exposed thereto, according as said fractional shut-off is shifted to operate the valves.

EDWARD A. TUTTLE.

Witnesses:

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