

(No Model.)

E. G. NUNN.

HEAT INDICATOR FOR OVENS.

No. 306,030.

Patented Sept. 30, 1884.

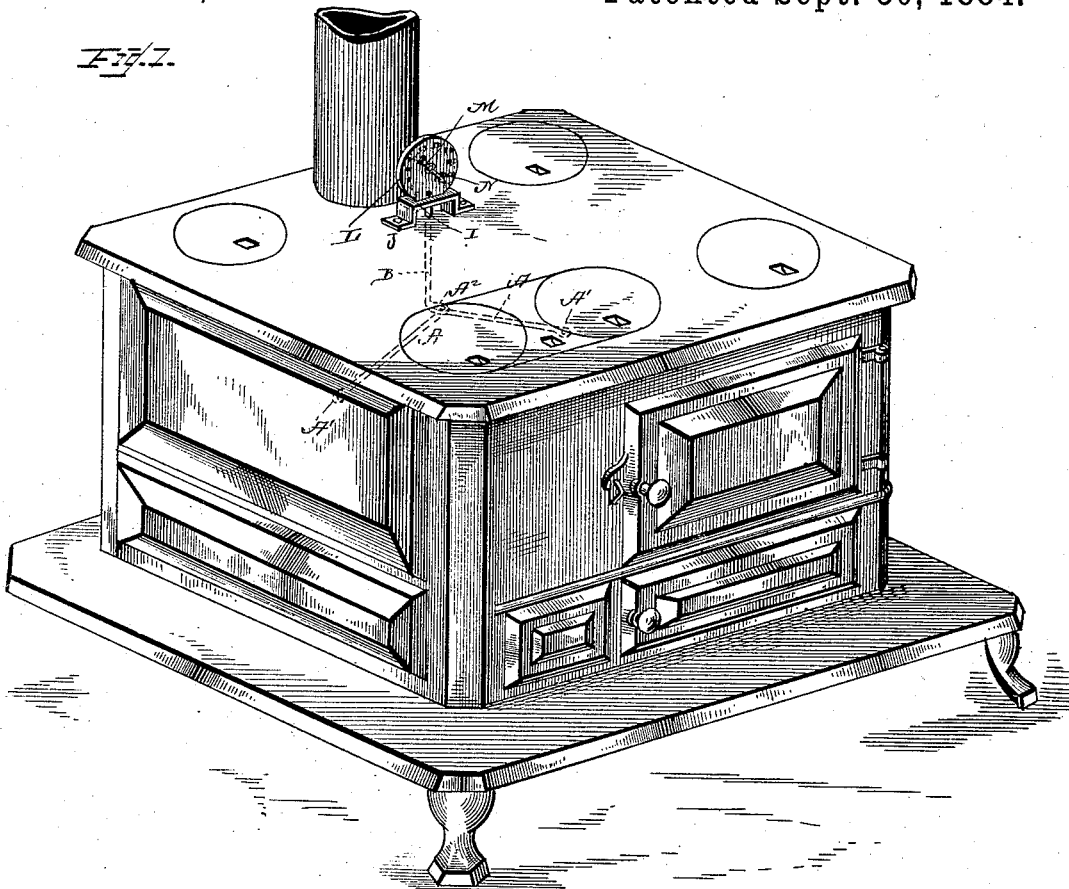


Fig. 2.

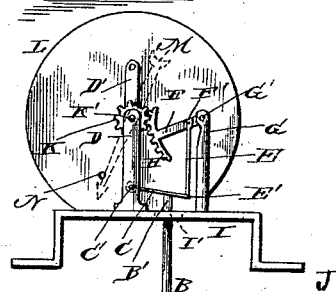
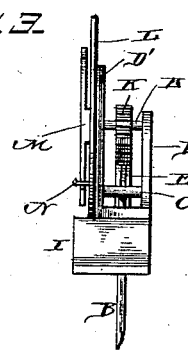


Fig. 3.



WITNESSES

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HEAT-INDICATOR FOR OVENS.

SPECIFICATION forming part of Letters Patent No. 306,030, dated September 30, 1884.

Application filed June 7, 1884. (No model.)

To all whom it may concern:

Be it known that I, EMMA G. NUNN, a citizen of the United States, residing at Vassar, in the county of Tuscola and State of Michigan, have invented certain new and useful Improvements in Heat-Indicators for Ovens, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention is a heat-indicator to be attached to stoves, ranges, &c., to show at all times the temperature of the oven; and it consists in the parts which will be hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective face view of my device. Fig. 2 is a rear elevation of the device, and Fig. 3 is a detail side view.

Like letters indicate like parts throughout the several views.

A is a rod flattened at the center and ends. The ends A' are provided with openings for the reception of screws or rivets, by means of which the rod is secured in the oven of a stove or range.

B is a vertical rod secured at A² to the apex of the expansible rod A. The top of rod B at B' rests under bar C. The rod B may be jointed to the bar C. Said bar is pivoted at C' between the standards D D'. The standard D' is fixed to the back of the disk.

E is an arm jointed at E' to the loose end of the bar C.

F is an arm, provided on its loose end with a toothed segmental piece, H. The arm F is jointed at F' to the arm E.

G is a vertical standard fixed to the supporting-frame I. Said frame is provided with an opening, I', to admit the vertical rod B. The arm F is pivoted at G' to the top of standard G'.

K is a toothed wheel fixed to the dial-shaft between the standards D D'.

L represents the dial, and M the hand or indicator thereon. N is a zero stop on the face of the dial. Said dial-face is provided with a series of numbers representing degrees of heat. J is a bracket fixed to the stove in front of the pipe, on which the frame I, dial, &c., are mounted. If a stove has an elevated oven, the dial should be placed in the front of said oven.

The operation of the device is as follows: The ends A' of the expansible rod A are rigidly fixed in the oven, and the rod B and intervening mechanism so adjusted that when

there is no heat in the oven the hand will point to zero on the dial. When in that condition, the parts will be in the position substantially as shown in Fig. 2 of the drawings. When the oven is heated, the rod A, being subjected to the heat, necessarily expands. The ends of said rod being rigidly secured, the expansion will manifest itself by lifting apex at A². Such expansion will lift the rod B, bar C, and the arms E and F, by means of their jointed and pivoted arrangement, as hereinbefore specified. The segmental teeth of the piece H engages the spur-wheel K. Therefore by lifting the arm F the segmental piece is raised and the spur-wheel and dial-shaft K' rotated, and the hand M moved on the face of the dial. By this means the heat in an oven may be accurately and at all times indicated by the hand and figures on the dial-plate. As the oven is cooled the expansible rod A contracts, thereby turning the hand back on the dial.

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

1. In a heat-indicator, the expansible rod A, vertical rod B, resting under bar C or jointed thereto, arms E and F, and segmental tooth-piece H, the arm F being pivoted to the standard G, in combination with the spur-wheel K, hand M, and shaft K', said shaft being mounted in the standards D D', substantially as described, and for the purposes set forth.

2. In a heat-indicator, the expansible rod A, and vertical rod B, pivoted bar C, arms E and F, and the standards G and D D', said standards being mounted on the frame I, in combination with the shaft K', spur-wheel K, hand M, and dial L, substantially as described, and for the purposes set forth.

3. In a heat-indicator, a bent expansible rod having its ends secured in an oven, said rod being provided with a vertical rod, in combination with a dial and hand, and mechanism intervening between said hand and vertical rod whereby the temperature of an oven may be determined, substantially as described, and for the purposes set forth.

In testimony whereof I affix my signature in presence of two witnesses.

EMMA G. NUNN.

Witnesses:

C. C. CURTIS,
H. E. PRATT.