

(No Model.)

A. BEDNARZ.
HEAT REGULATOR FOR OVENS.

No. 505,345.

Patented Sept. 19, 1893.

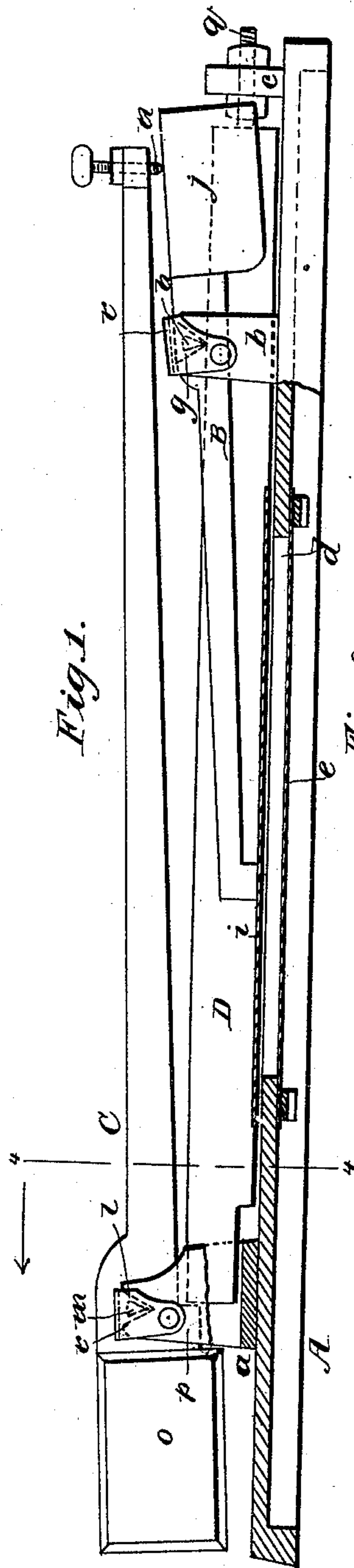


Fig. 1.

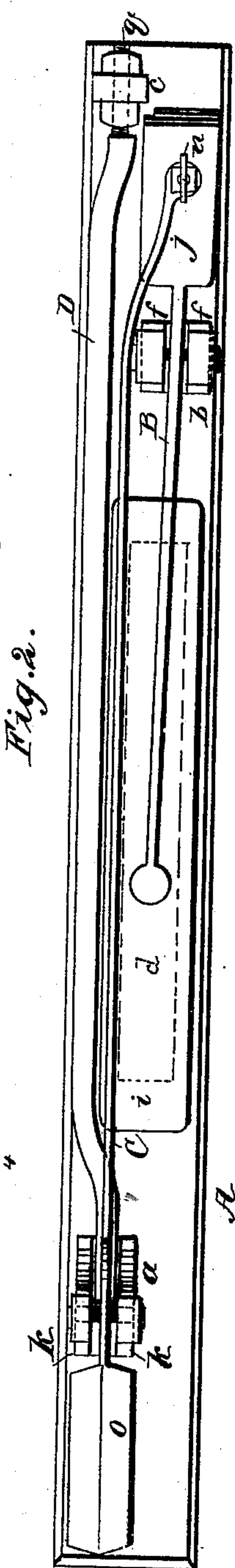


Fig. 2.

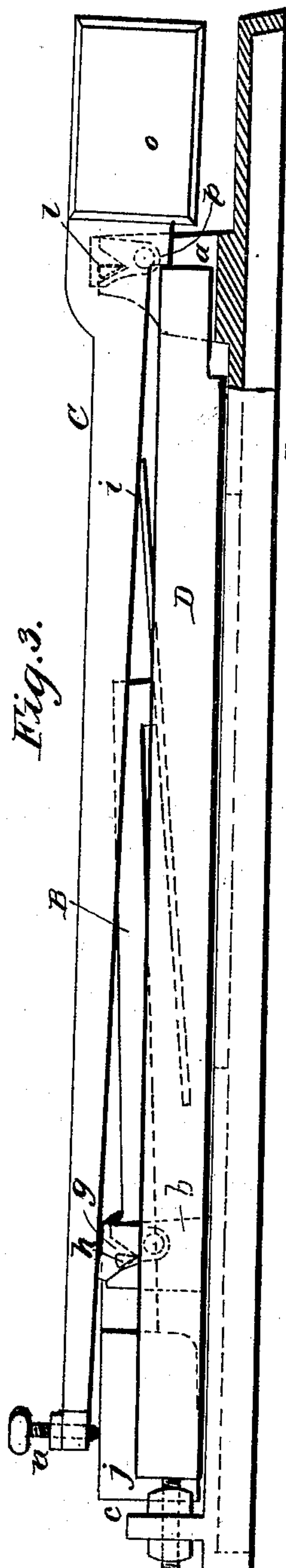


Fig. 3.

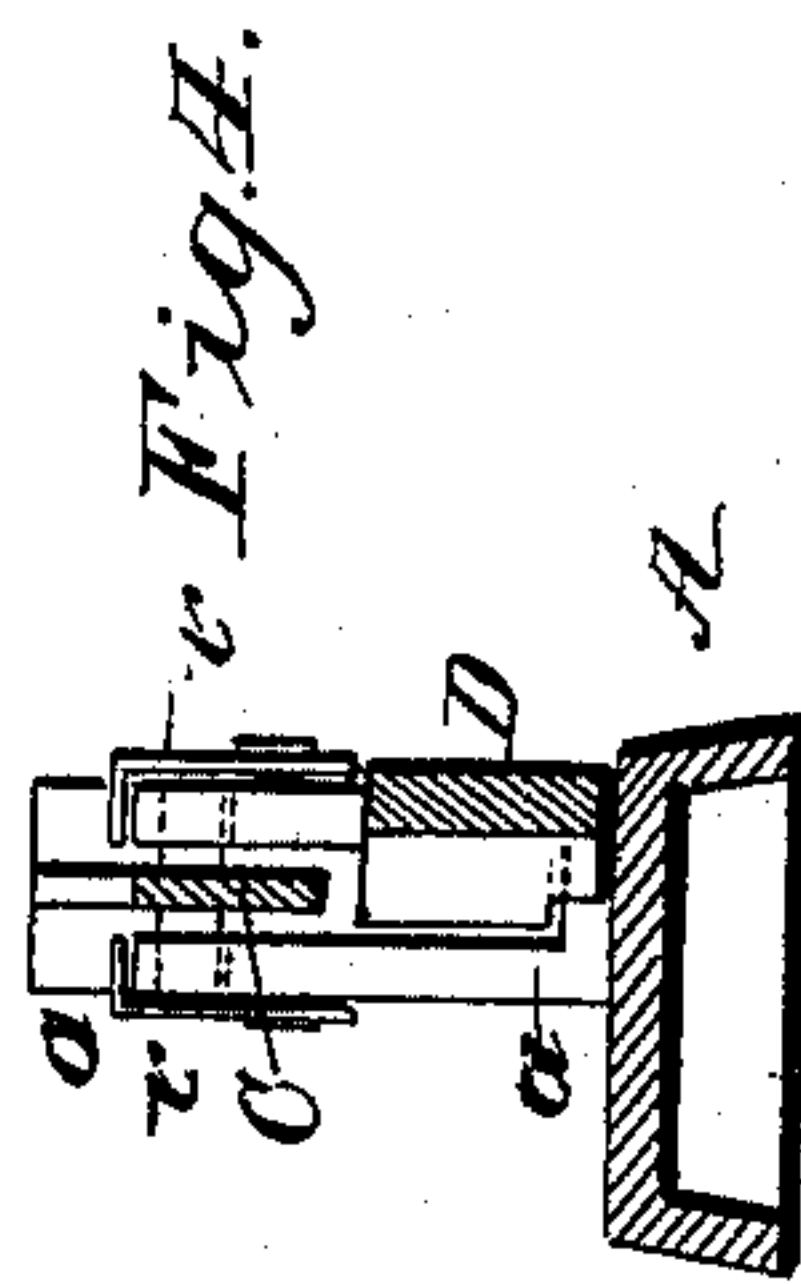


Fig. 4.

WITNESSES:

F. McArdle.
C. Sedgwick.

INVENTOR

A. Bednarz
BY *Munn & Co.*

ATTORNEYS.

UNITED STATES PATENT OFFICE.

ANTON BEDNARZ, OF NEW LISBON, WISCONSIN.

HEAT-REGULATOR FOR OVENS.

SPECIFICATION forming part of Letters Patent No. 505,345, dated September 19, 1893.

Application filed May 2, 1893. Serial No. 472,726. (No model.)

To all whom it may concern:

Be it known that I, ANTON BEDNARZ, of New Lisbon, in the county of Juneau and State of Wisconsin, have invented a new and Improved Heat-Regulator for Ovens, of which the following is a specification, reference being had to the annexed drawings, forming a part thereof, in which—

Figure 1 is a side elevation, partly in section, of my improved regulator. Fig. 2 is a plan view. Fig. 3 is a view showing the side opposite that shown in Fig. 1; and Fig. 4 is a transverse section taken on line 4—4 in Fig. 1.

Similar letters of reference indicate corresponding parts in all the views.

The object of my invention is to provide a simple and effective device for regulating the temperature of ovens, by allowing the heated air to escape.

My invention consists in a plate provided with standards for supporting and guiding the expansion bar, also for supporting the actuating levers, the said plate being provided with a wire gauze covered opening for establishing communication between the interior of the oven and the external air, and a cover carried by one of the levers, for closing the said opening, all as will be hereinafter more fully described.

The base plate A, which supports the parts of the apparatus, is furnished with three standards *a*, *b*, *c*. Between the standards *a*, *b*, is formed an oblong opening *d*, which is closed by wire cloth *e* secured to the under surface of the plate A. The standard *b* is slotted from the top downward, forming ears *f*, in which there are V-shaped notches *g* for receiving the V-shaped bearings *h*, projecting from the sides of the lever B, and forming the pivotal bearings upon which the said lever tilts.

The longer arm of the lever B carries an oblong cover *i*, which is capable of closing the opening *d* in the base plate A, and the shorter arm of the said lever is provided with a counter-weight *j*, which is sufficient to nearly counter-balance the weight of the longer arm of the lever B, and the cover *i* attached thereto.

The standard *a* is slotted in the direction of the length of the plate A, forming ears *k*, in which are made V-shaped notches *l* for re-

ceiving the V-shaped bearings *m* projecting from the lever C. The longer arm of the lever C carries an adjusting screw *n* at its free end, which is capable of touching the weight *j* when the said lever is moved in the manner presently to be described. The longer arm of the lever C is counter-balanced by the weight *o*, and the shorter arm *p* of the said lever is arranged at right angles to the longer arm.

In the standard *c* is inserted the screw-threaded shank *q* of the expansion bar D. The said bar is offset, to allow it to pass around the opening *d* in the plate A, and its free end extends into the slot between the ears *k* of the standard *a*, in position to exert a pressure on the shorter arm *p* of the lever C.

The standards *a*, *b*, are furnished with angled plates *r*, which are attached to the sides of the standards and which extend over the upper ends of the ears *k*, *f*, to retain the V-shaped bearings of the levers in their places.

The expansion bar D, which is made of brass or other material sensitive to heat, is adjusted so that when there is an increase of heat in the oven to which the device is applied, the free end of the bar presses upon the shorter arm *p* of the lever C, causing the said lever to tilt on its pivot and exert a pressure on the shorter arm of the lever B, thus depressing the shorter arm and causing the longer arm to rise, carrying with it the cover *i*, and leaving the opening *d* free for the escape of hot air.

By means of the nut placed on the threaded end of the expansion bar upon opposite sides of the standard *c*, any coarse adjustment of the apparatus may be made, and for a fine adjustment, the screw *n* in the free end of the longer arm of the lever C is used.

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

1. A heat regulator, comprising an apertured base plate, a cover for the opening of the base plate, oppositely pivoted levers, one of which carries the said cover and is engaged at its opposite end by the free end of the other lever, and an expansion bar for operating the said levers, substantially as described.

2. A heat regulator, comprising an aper-

5 tured base plate, a lever pivoted at one side of the opening of the base plate, a cover for the said opening carried by said lever, a second lever pivoted at the opposite side of the said opening and having its longer arm engaging the shorter arm of the first named lever, and an expansion bar engaging the short arm of the second lever, substantially as described.

10 3. The combination of the base plate A provided with the aperture *d*, the wire cloth *e*, the counter-balanced lever B, the cover *i* carried by the lever B, the counter-balanced lever C provided with the adjusting screw *n*, and the adjustable expansion bar D, substantially as specified.

ANTON BEDNARZ.

Witnesses:

J. M. GREENMAN,

WILLIAM BANDLER.