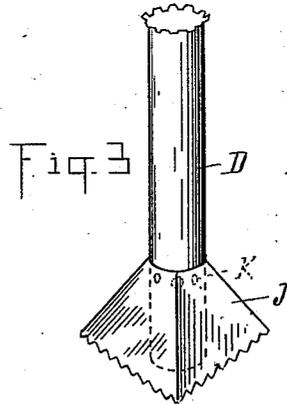
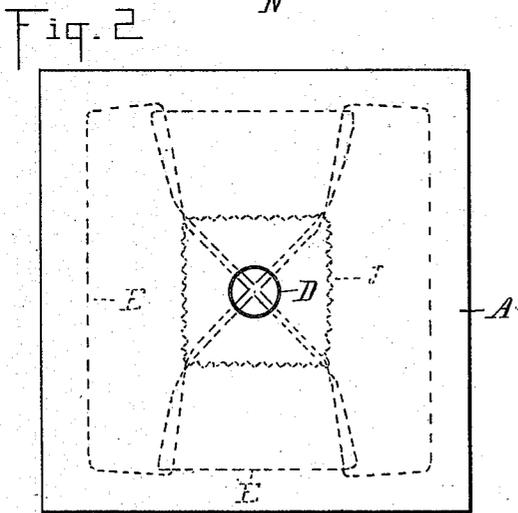
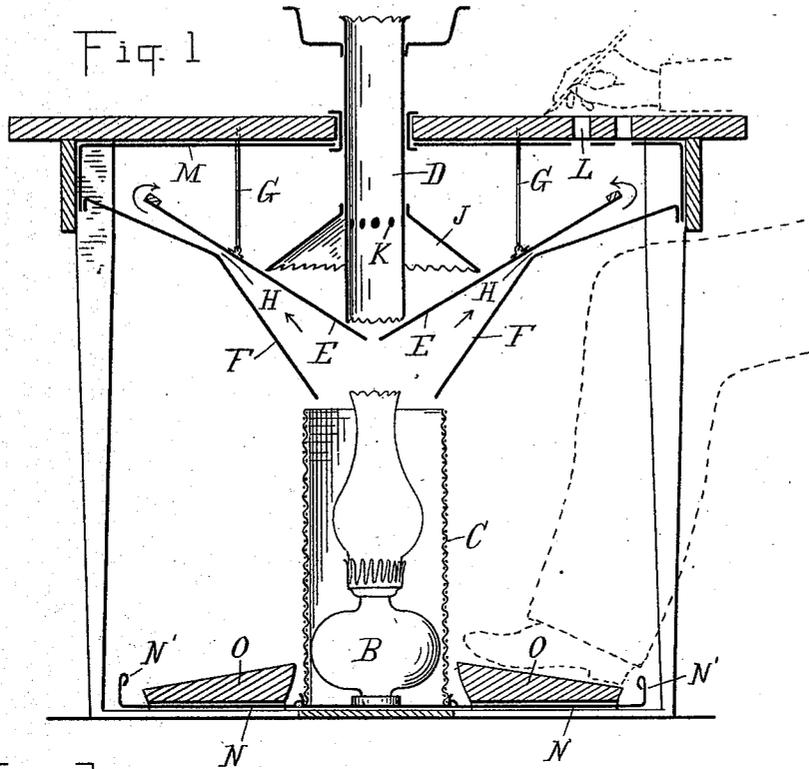


(No Model.)

T. C. GREEN.
BODY WARMER.

No. 412,744.

Patented Oct. 15, 1889.



Witnesses:
R. M. Hubbert
J. Paul Mayer

Inventor:
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By *Thos. S. Maguire*
Atty.

UNITED STATES PATENT OFFICE.

THOMAS C. GREEN, OF SOUTH HAVEN, MICHIGAN.

BODY-WARMER.

SPECIFICATION forming part of Letters Patent No. 412,744, dated October 15, 1889.

Application filed February 7, 1889. Serial No. 298,946. (No model.)

To all whom it may concern:

Be it known that I, THOMAS C. GREEN, a citizen of the United States, residing at South Haven, in the county of Van Buren and State of Michigan, have invented certain new and useful Improvements in Body-Warmers, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to new and useful improvements in body-warmers, principally designed for the comfort of persons employed in such sedentary occupations which render them liable, while sitting at their desks or work-tables, &c., to suffer from cold legs and hands.

My invention consists in the combination of a desk, table, or bench with a heater, all so constructed and arranged as to obtain the desired object of my invention.

In the drawings which accompany the specification, Figure 1 is a vertical central section through a table provided with a heater constructed and applied in accordance with my invention. Fig. 2 is a plan thereof. Fig. 3 is a detached perspective view of the escape-pipe.

A is a table of any suitable construction.

B is a heater, preferably consisting of an oil-burner—such as a large round wick-burner or other lamp—adapted to generate a considerable amount of heat, and this is inclosed upon all sides with a guard C, of wire-netting or otherwise.

D is an escape-pipe vertically and adjustably secured in any suitable manner in an aperture in the table and projecting some distance above the same, a suitable collar being secured in the aperture of the table through which the escape-pipe projects to protect the wood-work and serve as a means to hold the escape-pipe in its vertically-adjusted position. This escape-pipe has sufficient vertical adjustability to be lowered on top of the chimney or escape-flue of the heater to serve as an extension thereof, or to be withdrawn some distance upwardly to permit of diverting the heated products by the interposition of one or more deflectors E, secured below the table, to throw the heated currents of air and gases toward the outside of the table against metallic radiating-surfaces F, which are secured

to the table in proximity to the legs and knees of the sitter at the table. To secure equal deflection of the heat toward all sides of a table, these deflectors may be grouped and arranged as shown in Fig. 2, wherein four deflectors are shown, one for each side of the table, and with their meeting edges arranged diagonally to the table. These deflectors are movably secured by means of the hangers G from the under side of the table, so that by pushing the escape-pipe D down they will separate, or by withdrawing the escape-pipe upwardly they will meet and intercept the upward escape of the heated air and gases at any desired degree, or completely when allowed to meet in the center. This adjustment of the deflectors may be easily accomplished automatically by weighting the outer ends of the deflectors sufficiently to impart to their inner ends the tendency to swing up. Each deflector is provided correspondingly with a radiating-surface F, between which and the deflector sufficient space is provided for the heat to escape underneath the table-top, in an outward direction, through a throat H, and then passing underneath the top of the table find its way into the escape-pipe D. The latter is provided at its lower end with a serrated edge I, and with a funnel-shaped collar J, the lower end of which is also serrated. In connection with this collar the escape-pipe is provided with the apertures or perforations K, all so arranged as to form an indirect escape for the products of combustion into the escape-pipe in the direction of the arrows shown in Fig. 1.

To provide means for keeping the hands warm during occupation on the table, I provide the top of the table in suitable place or places with perforations or apertures L, covered over on top with perforated metal and felt, or equivalent material, to prevent danger from being burned by contact with the metal. A suitable lining M is secured to the exposed portions of the wood-work, that there may be no possible danger from burning. I preferably provide the top of the escape-pipe with a suitable shelf for hot water, or warming a lunch, or for other uses, direct heat being provided by lowering the escape-pipe sufficiently to displace the deflectors and create a direct escape for the heat of the lamp,

and, for convenience, I preferably make said escape-pipe in two sections or lengths.

I preferably secure the heater adjustably in position, so that it may be drawn to one side or the other for the purpose of deflecting the heat to any desired side of the table more or less. To facilitate its adjustment, I preferably secure at the bottom of the heater the connecting rods or wires N, which run toward the corners of said table and terminate in upwardly-projecting handles N', for convenient operation to draw the lamp in any desired direction. To support the heater in central position independently of the floor, underneath the table, I preferably connect the four feet of the table, at or near the floor, by diagonal braces, which serve as supports for the heater and for the connecting-rods N.

I preferably provide foot-rests O, convenient to the sitter and raised some distance above the floor, whereby the feet of the sitter will be benefited by the radiating heat from the lamp. Obvious arrangements are made to provide for the easy removal of the lamp, for the purpose of replenishing it with fuel when needed. It will be seen in practice that if the escape-pipe is sufficiently withdrawn upwardly the deflectors will close against each other, (entirely or partially so, as the connection will allow,) and the heat is thrown against any radiating - surface desired, or distributed equally all around if the lamp is kept in the middle, and at the same time the heat is carried underneath the top of the table and may be permitted to escape to benefit the arms and hands of a person reading. If less heat or no heat is wanted, the sitter lowers the escape-pipe sufficiently to form a more or less exit for the heat. It will be further seen that the legs and feet of the sitter are benefited by the direct radiation of the heater in addition to the heat from the radiating-surfaces F.

What I claim as my invention is—

1. In a body-warmer, the combination, with a table or desk, of a source of heat mounted below said table, and a radiating-surface below the top of said table or desk, adapted to be heated thereby and arranged to radiate the heat toward one or more sides of said table or desk, and the adjustable deflectors, substantially as described.

2. In a body-warmer, a table or desk, in combination with a radiating-surface and a source of heat mounted below said table and arranged to radiate the heat to one or

more sides of said desk or table, and a radiating-surface in the top of said table, and adjustable deflectors arranged between said radiating-surfaces, substantially as described.

3. In a body-warmer, substantially as described, the combination, with a desk or table, of a stove or heater mounted below the same and having an escape-pipe through the top of said table or desk, and a deflector or deflectors adapted to form an adjustable cut-off for the hot air and gases between the escape-pipe and heater, substantially as described.

4. In a body-warmer, the combination of the following elements: the table or desk, the stove or heater, the escape-pipe through the top of the desk or table, the deflectors, and the radiating-surfaces adapted to radiate the heat to the side of table or desk, all combined and operating substantially as described.

5. In a body-warmer, the combination, with the desk or table, of the stove or heater adjustably mounted below said desk or table, the gravitating deflectors, the radiating-surfaces adapted to be heated thereby and radiating to the sides of the desk or table, and the vertically-adjustable escape-pipe, all arranged to operate substantially as described.

6. In a body-warmer, the combination, with a table or desk, of the stove or heater mounted below the same, the vertically-adjustable escape-pipe through the top of said desk or table, the outwardly-inclined deflectors between the top of the heater and the escape-pipe and adapted to form adjustable cut-offs between the same, and the radiating-surfaces below the deflectors, substantially as described.

7. In a body-warmer, the combination, with the desk or table, of the heater B, the surrounding guard C, the vertically-adjustable escape-pipe D, perforated with the conical or pyramidal collar J, having its lower edge serrated, the gravitating deflectors E, the radiating-surfaces F, and the radiating-surface L, in the top of the table, all arranged to operate substantially and for the purpose as described.

In testimony whereof I affix my signature, in presence of two witnesses, this 24th day of January, 1889.

THOS. C. GREEN.

Witnesses:

E. A. HARTMAN,
S. B. MONROE.