

(No Model.)

A. T. MATTHEWS.
SHEET METAL KNOB.

No. 527,438.

Patented Oct. 16, 1894.

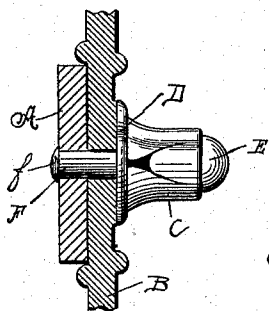


Fig. 2.

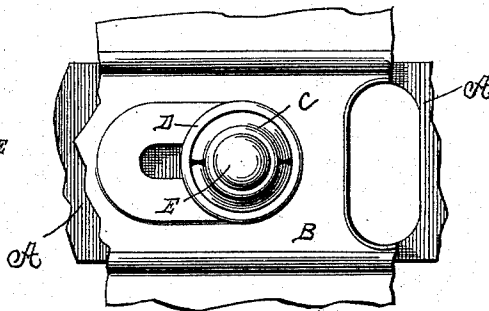


Fig. 1.

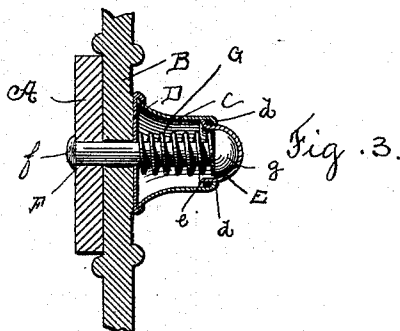


Fig. 3.

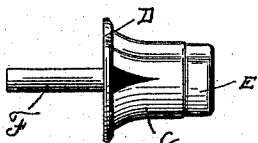


Fig. 5.

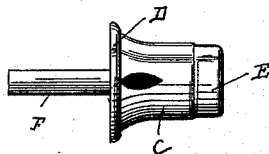


Fig. 6.

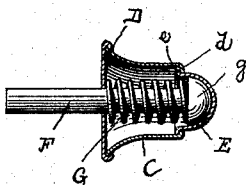


Fig. 4.

Witnesses
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UNITED STATES PATENT OFFICE.

AMBROSE T. MATTHEWS, OF WORCESTER, MASSACHUSETTS, ASSIGNOR TO
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SHEET-METAL KNOB.

SPECIFICATION forming part of Letters Patent No. 527,438, dated October 16, 1894.

Application filed June 8, 1894. Serial No. 513,879. (No model.)

To all whom it may concern:

Be it known that I, AMBROSE T. MATTHEWS, a citizen of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented a new and useful Improvement in Sheet-Metal Knobs, of which the following is a specification.

My invention relates to that class of knobs, which are adapted for use in connection with stove-slides or dampers, and are provided with spring sections for taking up wear, and for causing the parts to which the knob is applied to fit closely together.

The object of my invention is to provide a knob of this class, which may be easily applied to stove castings of different thicknesses, and which will be provided with ventilating orifices or openings to prevent the knob from becoming over-heated.

To these ends, my invention consists of the parts and combinations of parts as hereinafter described, and more particularly pointed out in the claims at the end of this specification.

In the accompanying drawings, Figure 1 is a front elevation of a portion of a stove-slide or damper with one of my improved knobs applied thereto. Fig. 2 is a side elevation of the same, the damper and stove casting being shown in section. Fig. 3 is a transverse sectional view of the same. Fig. 4 is a similar view showing the knob detached from the parts, in connection with which it is usually employed, and Figs. 5 and 6 illustrate modified forms of construction.

Referring to the drawings, and in detail, A designates a slide or damper which is adjustably mounted on a stove casting B, and is held in place by means of my improved knob.

My improved damper-knob consists of a body portion C which is formed of sheet-metal.

The body portion C is preferably stamped up from what is known as a "split blank," and may be formed from a blank which is provided with leaves or wings, or with partial leaves or wings, as described in my Patent No. 475,880; the parts of the blank being so proportioned that in completing the body portion C, ventilating orifices or holes are left in the same.

Instead of forming the split blank, as described in my patent, No. 475,880, I may employ a sheet-metal blank which has flaring wings so that when the body portion C is stamped into shape, it will leave ventilating orifices, substantially as illustrated in Fig. 5. Again, I may form the sheet metal blank for the body portion C, so that when completed, the parts of the blank will inclose the ventilating orifices, and form an abutting edge to receive the cap, as illustrated in Fig. 6. It will thus be seen that the formation of the body portion C admits of considerable modification, the essential requisite being that a split sheet metal blank shall be employed, and the body portion C shall be provided with ventilating orifices when completed.

Fastened upon and secured to one end of the body portion C, I provide a cap D, which is preferably secured in place by simply having its edge turned over upon the body portion C, although it is evident that the manner in which the parts C and D are secured together, admits of considerable modification. Extending centrally through the parts C and D, I provide a pintle or spindle F, having an enlarged head g.

Surrounding the spindle F between the cap portion D and the head g, I provide a coiled spring G, which bears upon the cap D, and provides for the spring action for holding the damper securely in place.

In order to prevent the head g from being disengaged from the body portion C, I preferably provide a sheet-metal cap or top section E, into which the head g may fit. The cap E fits telescopically into the body portion C, and the edges of these two sections are slightly spun or turned over as at d and e.

The advantage of this construction is that when the end of the spindle is riveted or fastened to the damper slide, the proper tension can be obtained by laying the cap or top section E on an anvil, whereby the edges d and e will be slightly separated, and so that when the spindle is headed over, the spring G will exert a tension between the head of the spindle and the cap D, whereby the damper or slide A will be kept snugly against the casting B. It will also be seen that I have provided a damper-knob which has a

central spindle, which fits into a head, and a spring-pressed body portion carried upon the spindle. This construction, I deem of advantage, as it enables me to easily secure knobs of my construction to stove castings of different thicknesses.

In practice, the spindle F is extended through the stove casting and the damper slide until the spring G is slightly compressed. The parts are then secured in position by heading over or riveting the spindle F, as indicated at *f*. The cap E being independent of the spindle F, the parts may be quickly and easily secured together, as a rest or anvil can be applied to the cap portion E, without injuring the same.

The device herein shown and described to illustrate my invention may be modified by a skilled mechanic without departing from the scope of my invention, as expressed in the claims.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. In a sheet-metal knob, the combination of a body portion having open ends, and formed of sheet-metal, a central spindle or pintle extending through said body portion, a sheet-metal cap carried by said spindle, a spring for exerting tension upon said spindle and body portion, said cap and body portion being provided with engaging abutments or

turned over edges for preventing the same from becoming disengaged, substantially as described.

2. In a sheet-metal knob, the combination of a body portion C formed of sheet-metal, a cap portion D carried by the body portion, a central spindle or pintle F having a cap which extends telescopically through the body portion C, the cap and the body portion C being provided with spun or turned over edges for preventing the same from becoming disengaged, and a coiled spring G mounted on the spindle, substantially as described.

3. In a sheet-metal knob, the combination of a body portion C stamped or formed from a split blank so as to be provided with ventilating orifices, a central spring pressed spindle having a head *g*, which extends telescopically through the body portion, and a cap portion E, fitted into the head *g*, the parts C and E being provided with edges which are turned or spun over in order to prevent the same from becoming disengaged, substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

AMBROSE T. MATTHEWS.

Witnesses:

LOUIS W. SOUTHGATE,
E. M. HEALY.