

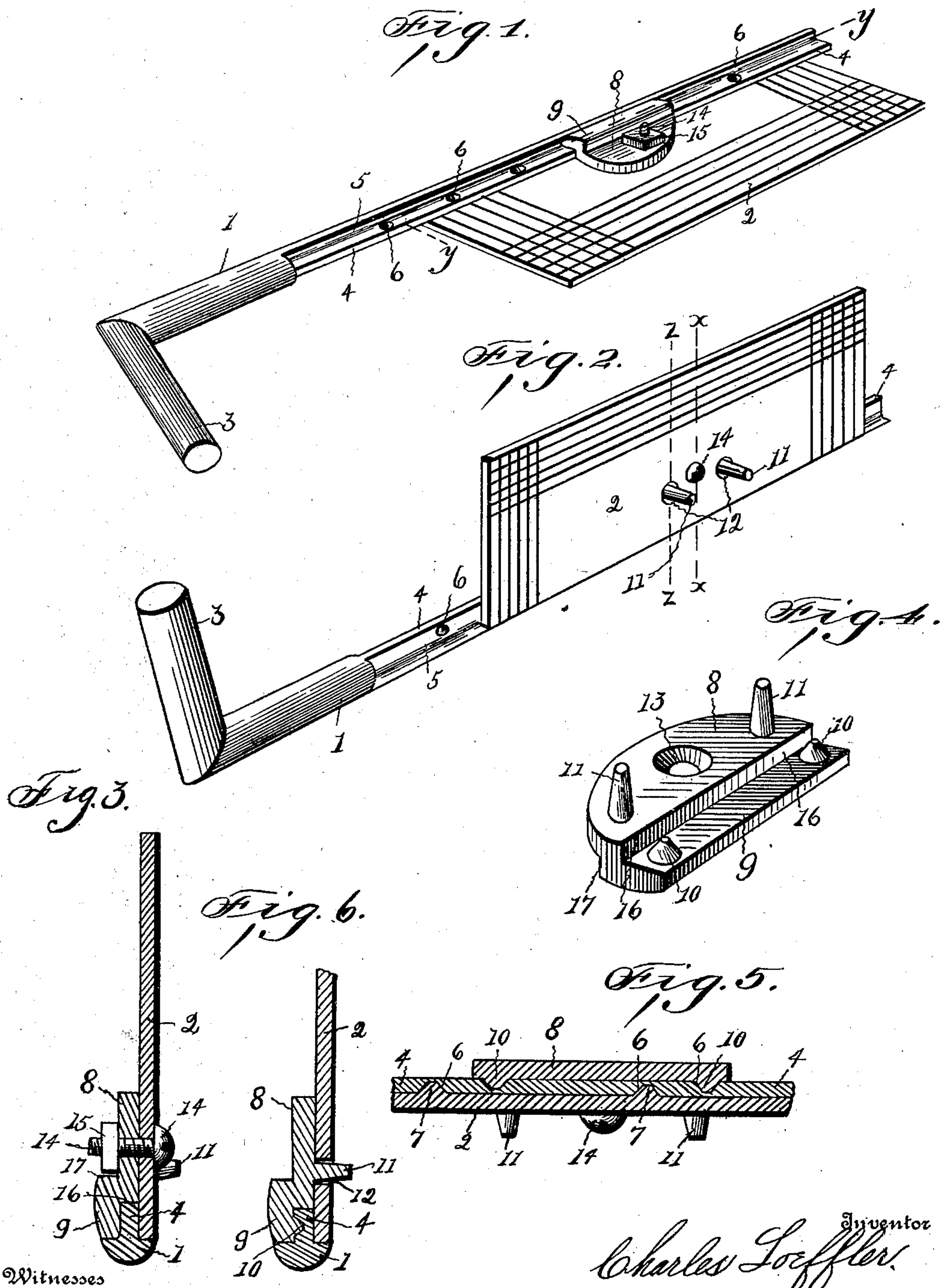
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C. LOEFFLER.
DAMPER.

(Application filed Mar. 28, 1902.)

(No Model.)



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UNITED STATES PATENT OFFICE.

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DAMPER.

SPECIFICATION forming part of Letters Patent No. 708,965, dated September 9, 1902.

Application filed March 28, 1902. Serial No. 100,479. (No model.)

To all whom it may concern:

Be it known that I, CHARLES LOEFFLER, a citizen of the United States, residing at Salt Lake City, in the county of Salt Lake and State of Utah, have invented certain new and useful Improvements in Dampers; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

My invention relates to stove-dampers designed more particularly for use in cooking-stoves; and its object is to provide a simple, efficient, and inexpensive damper which is reversible and adjustable on its operating-rod to adapt it to be placed in a position to perform its best work and which may be readily placed in a stove without taking the stove apart.

Other objects of the invention are to provide an improved clamp to hold the damper-plate on its operating-rod, to prevent longitudinal movement of the damper or accidental dislodgement of the parts, and to permit of the adjustment of the damper without removing the clamping-plate.

In carrying out my invention I employ only three members—an operating-rod, the damper-plate, and the clamping-plate. Thus the expense of manufacturing is reduced to a minimum and the parts so arranged as to insure an economy of space, and although especially designed for cook-stoves it may be utilized in stoves of different types should it be desired to adapt the damper for such other uses.

Figure 1 is a perspective view of one side of my improved damper. Fig. 2 is a like view showing the opposite side of the damper to that shown in Fig. 1. Fig. 3 is a transverse section taken on the line xx of Fig. 2. Fig. 4 is a perspective of the clamping-plate. Fig. 5 is a detail longitudinal section on the line yy of Fig. 1, and Fig. 6 is a transverse section taken on the line zz of Fig. 2.

Like characters of reference indicate corresponding parts throughout the different views.

Referring to the drawings, 1 designates the rod of the damper, and 2 the damper-plate.

The operating-rod is bent at one of its ends to form the handle 3 and has a longitudinal rib 4 formed by providing a longitudinal cut-away portion 5 on each side of the rod a portion of its length, which gives it a T shape in cross-section. In each side of the longitudinal rib 4 are formed annular sockets or depressions 6, alternately arranged and spaced apart at uniform distances. Near the inner edge of the damper-plate are formed a series of uniformly-spaced protuberances 7, which engage the sockets 6 in the rib 4 when the parts are secured together, as shown in Fig. 5. By spacing the recesses and protuberances apart at uniform distances the protuberances on the plate will always be in alinement with some of the recesses in the rib when the plate is moved longitudinally on the rod to different positions. To hold the damper-plate to the rod, I provide a clamping-plate 8, having an offset lower edge 9, provided with protuberances 10, which engage the recesses 6 on the opposite side of the rib. Integrally formed on the clamping-plate and projecting from the face thereof are a pair of lugs 11, adapted to project through apertures 12 in the damper-plate. The clamping-plate is removably secured to the damper-plate by means of a bolt 14, passing through an opening 13 and an alining opening in the damper-plate and having a nut 15 screwed on its end. The offset edge 9 of the clamping-plate provides parallel transverse edges 16 and 17. The depth of the edge 16 is equal to the thickness of the rib 4, so that the two plates and the rod fit tight, and the edge 17, projecting opposite the nut 15, serves as a nut-lock. It will be seen that when the damper-plate is fitted in either of the longitudinal grooves 5 its outer edge will be flush with the outer edge of the rod 1, so that a close fit will be effected between the walls of the flue and the damper-plate, and thus prevent the escape of the products therethrough when the damper is closed.

By employing recesses and corresponding protuberances in the rod, damper-plate, and clamping-plate the parts are not only prevented from transverse movement, but also from longitudinal movement when the nut 15 is screwed tight against the clamping-plate. When, however, it is desired to adjust the

damper on or remove it from the rod, the screw may be loosened sufficiently to permit the protuberances to disengage the recess and the rod or damper-plate moved longitudinally
5 or entirely separated; but the clamping-plate will be held to the damper-plate, as the lug 11 projects therethrough far enough to allow the disengagement of the rod without releasing the clamping-plate, the depth of the protuberances being less than the lugs, and the
10 reversible damper-plates permit the damper to be used on stoves of different makes.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—
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1. A damper comprising a rod having a longitudinal rib, a reversible apertured damper-plate fitted to the rod, its lower end lying flush with the outer side of the rod, a clamping-plate engaging the other side of the rib
20 and having lugs projecting through the apertures in the damper-plate, and means for clamping the parts together.

2. A damper comprising a rod having a longitudinal rib provided with recesses in each
25 side thereof, a reversible apertured damper-plate having protuberances to engage said recess, a clamping-plate having protuberances to engage the recesses in the opposite side of

the rib and having lugs projecting through
30 the apertures in the damper-plate, and means to secure the parts together.

3. A damper comprising a rod having a longitudinal rib provided with recesses on each
side thereof, a reversible apertured damper-plate having protuberances to engage said
35 recesses, a clamping-plate having protuberances to engage the recesses in the opposite side of the rib and lugs of greater length than the said protuberances, projecting through
40 the apertures in the damper-plate and means to clamp the parts together.

4. In a damper, the combination of a rod having a rib and recesses formed in each side
thereof, a reversible apertured damper-plate
45 having protuberances to engage said recesses, a clamping-plate having lugs projecting through the apertures in the damper-plate and an offset edge provided with protuberances to engage the recesses in the opposite
50 side of the rib, and means to hold the parts together.

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

CHARLES LOEFFLER.

Witnesses:

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