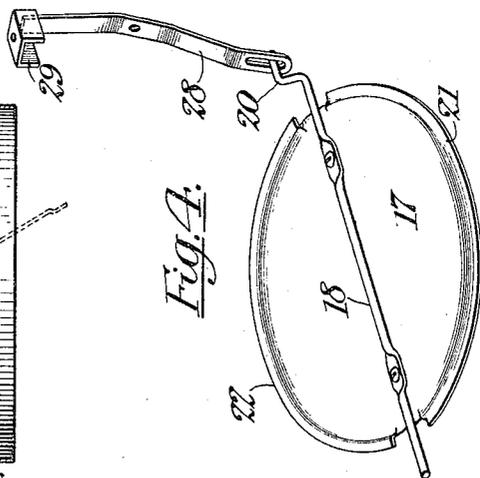
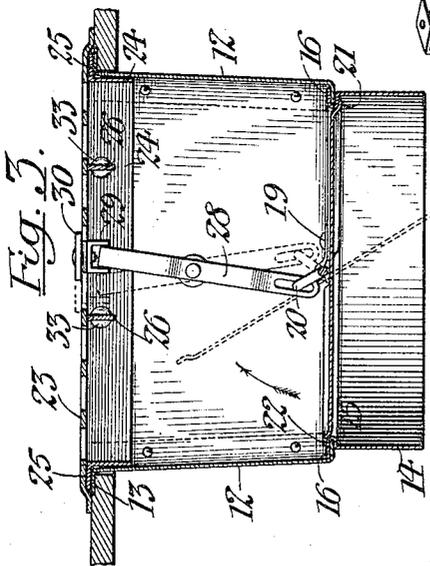
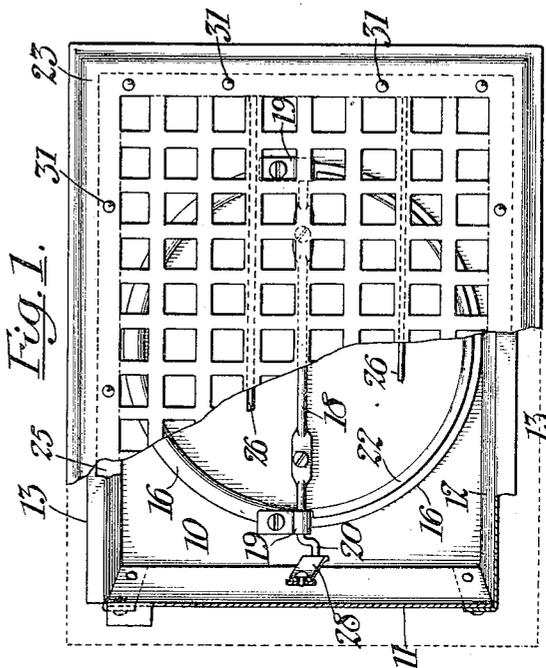
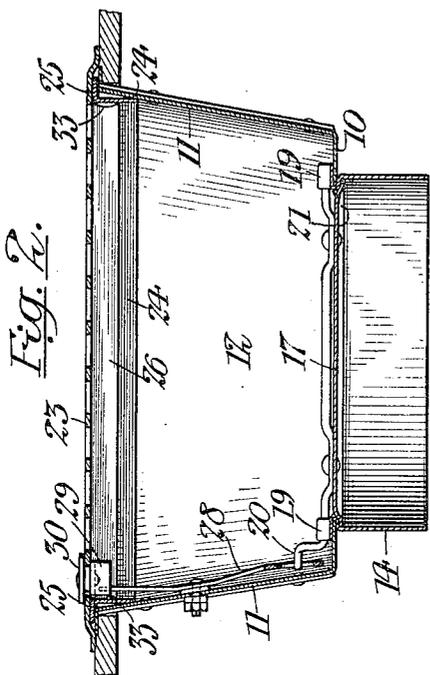


C. S. HOOD.
 REGISTER.
 APPLICATION FILED AUG. 6, 1913.

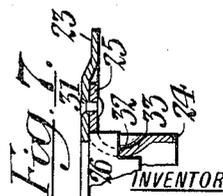
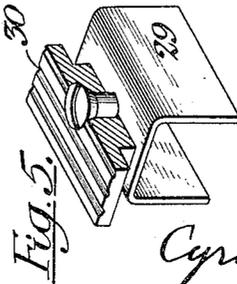
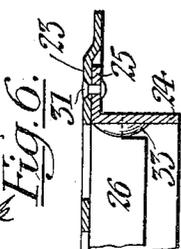
1,151,359.

Patented Aug. 24, 1915.



WITNESSES

Wm. H. Brown
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UNITED STATES PATENT OFFICE.

CYRUS S. HOOD, OF CORNING, NEW YORK.

REGISTER.

1,151,359.

Specification of Letters Patent.

Patented Aug. 24, 1915.

Application filed August 6, 1913. Serial No. 782,344.

To all whom it may concern:

Be it known that I, CYRUS S. HOOD, a citizen of the United States, and resident of Corning, in the county of Steuben and State of New York, have invented certain new and useful Improvements in Registers, of which the following is a specification.

This invention relates to certain improvements in registers and more particularly to that general type shown in my prior Patent No. 633,455, granted September 19th, 1899.

The general objects of my present invention are to secure to a greater degree the results sought by my previous constructions, to reduce the cost of manufacture and to simplify the construction.

In my present improved construction the register box constitutes an important feature of my invention and is formed from a single piece of sheet metal or wrought iron.

The box has an opening in the bottom and a further feature of my invention involves the improved construction whereby the collar for the cellar pipe, is secured within this opening and at the same time is formed for the damper.

A further feature involves the mechanism for swinging the damper and insuring the proper engagement of the parts irrespective of slight variations in the elevation of the fret-work surface plate.

A further feature involves the slide in the face of this surface plate and another feature involves the construction of the surface plate itself.

These features as well as others will be described more in detail hereinafter and particularly pointed out in the claims.

Reference is to be had to the accompanying drawings in which similar characters of reference indicate corresponding parts throughout the several views, and in which—

Figure 1 is a top plan view of a construction embodying my invention, a portion being broken away; Fig. 2 is a central, vertical, longitudinal section; Fig. 3 is a central, vertical transverse section; Fig. 4 is a perspective view of the damper and operating mechanism; Fig. 5 is a perspective view of the damper operating slide; and Figs. 6 and 7 are sectional details of a portion of the fret-work surface plate.

In the specific construction illustrated I form the entire register box of a single piece

of sheet metal including a bottom wall 10, end walls 11—11, and side walls 12—12. The side and end walls are formed as integral extensions on the bottom wall and are secured together along the substantially vertical corners in any suitable manner as for instance by folding the corner portions of the blank into engagement with the side or end walls or by cutting out the corner portions and securing one pair of walls to the other by flanges on one pair overlapping and riveted to the other pair of walls. The box is preferably somewhat smaller at the lower end than at the upper and the side and end walls at their upper edges are bent outwardly to form supporting flanges adapted to rest upon the upper surface of the floor or on any other suitable support. The bottom wall 10 has a circular aperture therethrough at which is secured an annular collar 14 adapted to telescope with the cellar pipe. This collar 14 is substantially cylindrical and is of slightly smaller diameter than the opening in the bottom wall and is beaded inwardly to form a seat for the lower surface of the bottom wall about the opening in the latter. The free edge of the metal of the collar is then beaded or bent outwardly to form a flange in engagement with the upper surface of the wall about the aperture in the latter. The collar is thus permanently attached to the register box and the means of attaching constitutes a reinforcing of the bottom wall and a protection to the thin edge of the metal of said bottom wall about the opening. A damper 17 is provided which is preferably circular in form and of slightly larger diameter than the opening. The damper is secured to a transverse rod 18 serving as a pivot the projecting portions being journaled beneath small clips 19 secured to the bottom wall 10. One end of the rod is bent to form a lever arm or crank 20 by means of which the damper may be turned. Preferably the damper has a peripheral portion 21 on one side of the pivot bent downwardly so as to seat against the under side of the flange 15 when the damper is closed, and a peripheral portion 22 on the opposite side of the pivot rod 18 bent upwardly to seat against the upper flange 16 when the damper is closed. The damper is thus effectively stopped when it reaches the closed position

and the bead of the collar 14 constitutes a seat for substantially the entire peripheral portion of the damper. The surface fret-work plate 23 is preferably formed of a piece of sheet metal or wrought iron and has a plurality of openings cut therein. For insuring the proper position of the plate and preventing lateral movement the under surface of the plate is provided with a depending flange 24 adapted to project into and register with the upper end of the register box. This flange 24 is secured to the top plate by a lateral flange 25 secured to the top plate by suitable rivets 31 and adapted to lie over the flange 13. The peripheral portion of the plate 23 is preferably bent down a distance at least equal to the thickness of the flange 25, so as to closely engage with the upper surface of the floor or with the carpet or other covering thereon. For reinforcing and supporting the central portion of the plate, I preferably provide reinforcing bars 26 disposed edge-wise in close engagement with the under-surface of the plate 23 and having their ends projecting into and supported by the flange 24. Preferably they are secured as is shown particularly in Figs. 6 and 7. A portion of the bar at each end is cut away to form a shoulder 32 and a portion 33 of the flange 24 is bowed toward the bar and slotted from the bar upwardly. The bowed portion prevents lateral movement of the bar and the flange 25 prevents endwise movement.

Pivoted to the inner surface of one of the end walls 11 I provide a lever 28 disposed substantially vertically and having its lower end in engagement with the crank or lever portion 20 of the damper pivot rod. As shown the lower end of the lever is slotted and receives the projecting end of said rod. Mounted on the surface plate is a slide shown in detail in Fig. 5. This slide includes a channel section 29 with depending side flanges receiving between them the upper end of the lever 28. The channel section is supported by a roughened plate portion 30 disposed above the plate 23 and adapted to be moved back and forth by pressing the foot thereon or in any other suitable manner. The plate 30 may be under-cut to a width corresponding to a slot in the plate 23 so as to insure its proper position, prevent its accidental removal and guide it through its limit of movement. The flanges of the channel member 29 are of such length that the elevation of the top plate may be varied through quite appreciable limits without disengaging said channel member from the lever 28. Thus the edges of the plate 23 may be placed upon the edge of a carpet, rug, or other floor covering of varying thickness, and the mere placing of the plate in position will produce the proper operative engagement of the slide and the lever

28 and enable the damper to be opened and closed at will.

Various changes may be made in the details of construction within the scope of the appended claims and without departing from the spirit of my invention.

Having thus described my invention, what I claim as new and desire to protect by Letters Patent is:

1. A register including a register box formed of sheet metal and having an apertured bottom, and an annular collar below said box adapted for connection to a supply pipe, said collar having an inwardly directed bead receiving the box bottom at the periphery of the aperture, and serving to rigidly connect said collar and said box.

2. A register including a register box formed of sheet metal and having an apertured bottom, and an annular collar below said box adapted for connection to a supply pipe, said collar having an inwardly directed bead receiving the box bottom at the periphery of the aperture, and serving to rigidly connect said collar and said box, and a pivoted damper seating upon said bead.

3. A register including a register box formed of sheet metal and having an apertured bottom, and an annular collar below said box adapted for connection to a supply pipe, said collar having an inwardly directed bead receiving the box bottom at the periphery of the aperture, and serving to rigidly connect said collar and said box, and a damper pivotally connected to said box bottom and having approximately one-half the peripheral portion thereof seating against the under surface of said bead and having approximately one-half of the peripheral portion seating against the upper half of said bead.

4. A register including a register box, a damper within the latter, a lever pivoted to one wall of said box and operatively connected to said damper, a reticulated plate at the upper end of said box and a slide carried by said plate and normally operatively connected to said lever, said slide being automatically detachable from said lever upon the raising of said plate.

5. A register including a register box, a damper therein, a reticulated surface plate spaced from said damper, a lever pivotally supported intermediate of its ends, and having one end operatively connected to said damper and an operating member carried by said plate and having depending flanges receiving the upper end of said lever therebetween, said member being automatically disengaged from said lever upon the removal of said plate.

6. A register including a register box, a damper therein, a reticulated metal plate spaced from said damper, a lever pivotally supported intermediate of its ends and hav-

ing one end operatively connected to said
damper, a member carried by said plate and
operatively connected to the opposite end of
said lever and automatically detachable
5 therefrom upon the removal of said plate
from said box.

Signed at Corning in the county of Steu-

ben and State of New York this 24th day
of July A. D. 1913.

CYRUS S. HOOD.

Witnesses:

ROBERT H. HOOD,

ALFRED G. HOOD.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."