April 13, 1926.

1,580,333

A. A. ROESCH

RANGE

Filed April 20, 1925

Fig. 1

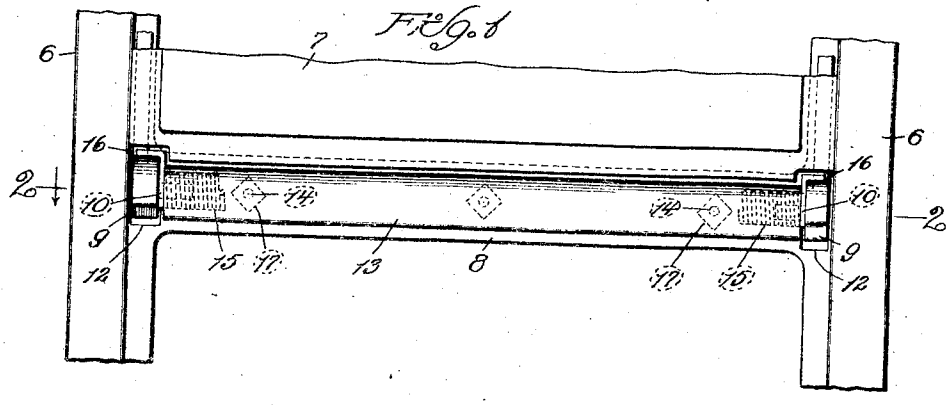
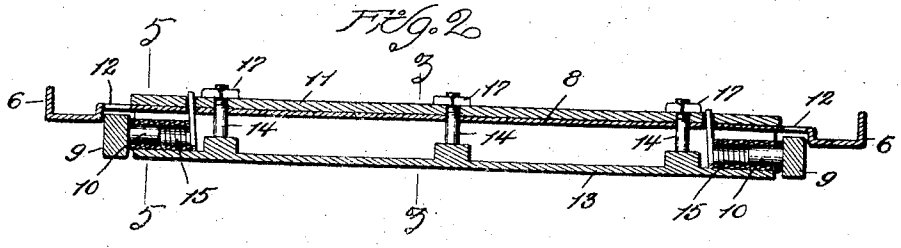


Fig. 2



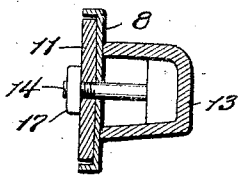


Fig. 3

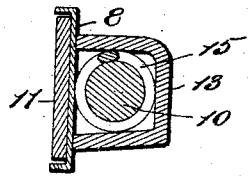
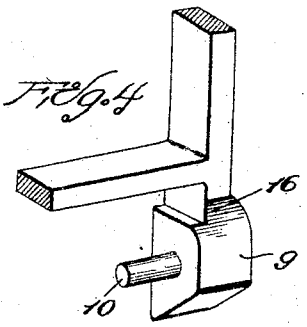


Fig. 5

Fig. 4



INVENTOR

ARTHUR A. ROESCH,

by Arthur C. Eckert ATTORNEY.

Patented Apr. 13, 1926.

1,580,333

UNITED STATES PATENT OFFICE.

ARTHUR A. ROESCH, OF BELLEVILLE, ILLINOIS, ASSIGNOR TO ROESCH ENAMEL RANGE COMPANY, OF BELLEVILLE, ILLINOIS, A CORPORATION OF ILLINOIS.

RANGE.

Application filed April 20, 1925. Serial No. 24,567.

To all whom it may concern:

Be it known that I, ARTHUR A. ROESCH, a citizen of the United States of America, residing at Belleville, in the county of St. Clair and State of Illinois, have invented certain new and useful Improvements in Ranges, of which the following is a specification.

The object of my device is to make a hinge. A more specific object is to make a hinge to be used on doors of ranges. A further object is to make a hinge for the doors of ranges in such a manner that the hinge will be concealed from view. In the conventional range hinge the hinge is not only visible but unsightly and functions relatively imperfectly. With the use of my hinge this unsightliness is removed and the door of the range will be normally held closed by the hinge and makes the operation of the door simple.

With these and other objects in view, my invention has relation to certain novel features of construction and arrangement of parts as will be hereinafter more fully described, pointed out in the claim, and illustrated in the drawings, in which,

Fig. 1 is a front elevation of a portion of the door frames of a range, together with my hinge and a portion of one range door.

Fig. 2 is a longitudinal sectional elevation on the line 2—2 of Fig. 1.

Fig. 3 is a transverse sectional elevation on the line 3—3 of Fig. 2.

Fig. 4 is a perspective view of a portion of the range door showing the hinge pintle and door step.

Fig. 5 is a transverse sectional elevation on the line 5—5 of Fig. 2.

Numerals 6 designate fragments of the vertical portions of the door frames, numeral 7 designates a fragment of the door, and numeral 8, the horizontal portion of the door frame. The horizontal portion 8 is integrally connected at its ends to the vertical portions 6 of the door frames. At the two lower corners of the door are integrally secured the door stops 9 to which, and at right angles thereto, are integrally secured the pintles 10. The door is hingedly secured to the horizontal portion 8 of the door frame in the following manner.

Numeral 11 designates a securing plate positioned on the back of the horizontal portion 8 of the door frame. Rectangular openings 12 are formed, one on each end of the horizontal portion 8 of the door frame, of such size as to permit the insertion therein of the door stops 9. The ends of the securing plate 11 are cut away so as not to obstruct the opening through the rectangular openings 12. The means of securing the securing plate 11 to the horizontal portion 8 of the door frame will be subsequently described. Numeral 13 designates a cover plate of substantial **U** section, having studs 14 formed in the inner side of the bottom of the **U** section. I preferably use three of such studs. Numeral 15 designates coiled springs that are employed one on each side of the door 7. The assembling operation is the following. The coiled springs 15 are placed over the pintles 10, one spring on each pintle. One end of the springs 15 is engaged frictionally in the slots 16 formed integrally above the door stop 9 on its inner side. The securing plate 11 is then placed in position. The other ends of the springs 15 are passed through holes in the horizontal portion 8 of the door frame and through holes in the securing plate 11 that register therewith. The door stops 9 will be immediately in front of the openings 12 when the door is in a closed position. The cover plate 13 is now positioned so that its ends will cover or obscure the coiled springs 15, the studs 14 are passed through holes in the horizontal portion 8 of the door frame, and through registering holes in the securing plate 11. Nuts 17 are now screwed on the ends of the studs 14. When the nuts 17 are tightened, my structure is assembled. It will be seen that when the door is opened, the springs 15 will be compressed and the door stops 9 will pass through the rectangular openings 12. The door 7 cannot be rotated to a position below the horizontal because the flat surfaces of the door stops 9 engage the tops of the rectangular openings 12.

What I claim and mean to secure by Letters Patent is,

In combination with a door frame, a door, door stops formed integral with said door, pintles formed integral with said door stops; springs enveloping said pintles, one end of each spring secured to said frame and the other secured to said door, a cover plate of U section having studs formed on the inner side of the bottom of the U section, said cover plate secured to said door frame over said pintles and springs.

In testimony whereof I affix my signature.

ARTHUR A. ROESCH.