C. W. F. KOCH & U. G. SHULER.

ELEVATING CASTER.

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1,092,220. Patented Apr. 7, 1914.

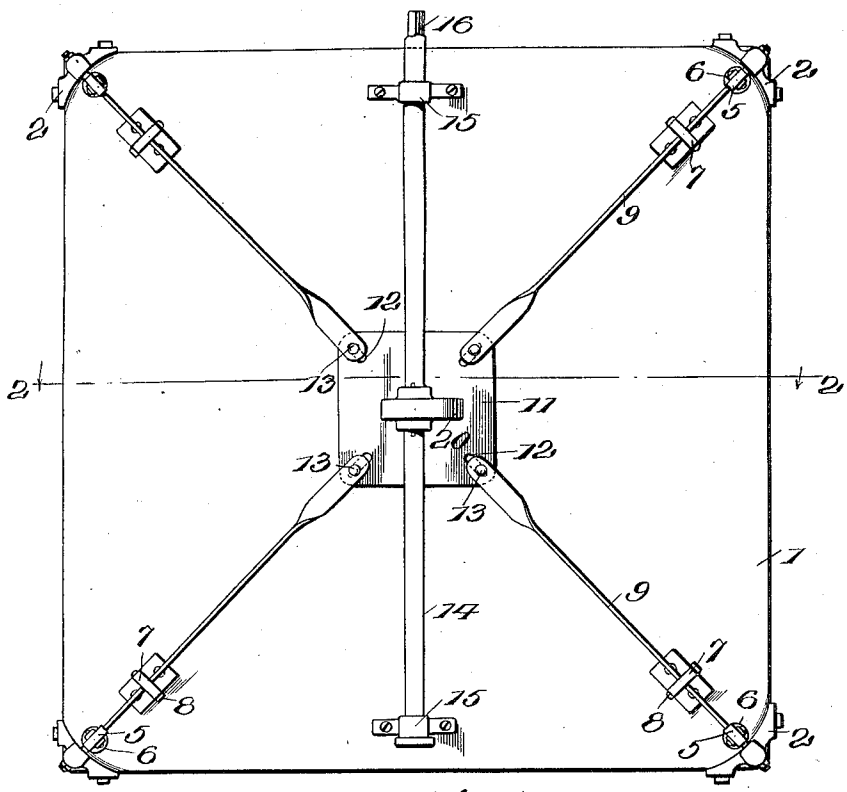


Fig. 1.

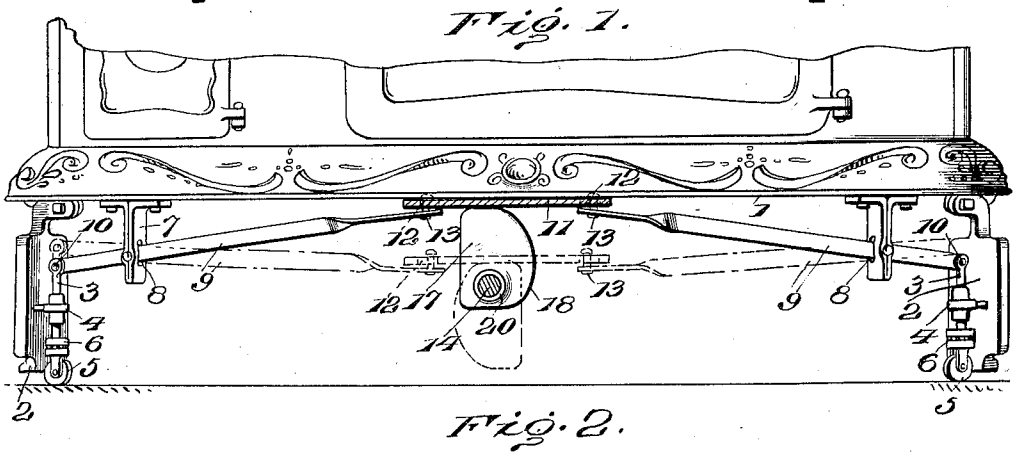


Fig. 2.

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UNITED STATES PATENT OFFICE.

CHARLES W. F. KOCH AND ULYSSES G. SHULER, OF DECATUR, ILLINOIS.

ELEVATING-CASTER.

1,092,220. Specification of Letters Patent. Patented Apr. 7, 1914.

Application filed June 12, 1912. Serial No. 703,357.

To all whom it may concern:

Be it known that we, CHARLES W. F. KOCH and ULYSSES GRANT SHULER, citizens of the United States, residing at Decatur, in the county of Macon and State of Illinois, have invented certain new and useful Improvements in Elevating-Casters, of which the following is a specification.

This invention relates to stove lifters and supports, and has as its object to provide, in connection with a stove, a supporting device arranged to normally firmly support the stove and also arranged to support the stove in such manner that it may be readily moved from place to place.

The device embodying the present invention includes supplemental supporting legs which are assembled with the ordinary supporting legs of the stove to which the device is applied, these legs being provided with casters, and means being provided for forcing the legs downwardly to bring the casters into engagement with the floor upon which the stove is supported.

For a full understanding of the invention reference is to be had to the following description and accompanying drawing, in which:—

Figure 1 is a bottom plan view of a stove equipped with the device embodying the present invention. Fig. 2 is a vertical sectional view taken diagonally across the bottom of the stove.

Corresponding and like parts are referred to in the following description and indicated in all the views of the accompanying drawing by the same reference characters.

In the drawing the bottom of the stove is indicated by the numeral 1, and it will be readily understood that this element may be the bottom of a coal range, heating stove, or gas range.

The legs of the stove are indicated by the numeral 2, and are as in the case of any ordinary stove, located one at each corner of the bottom 1, and these legs serve to firmly support the stove in a stationary manner.

As before stated, supplemental supporting legs are provided and associated with the main legs 2, and each of these supporting legs 2 is indicated by the numeral 3 and is slidably mounted in a bracket 4 which is fixed upon the inner side of the respective leg 2. Each leg 3 is provided at its lower end with a caster 5 which is connected by a swivel connection as at 6 to the lower end of the leg so that it may have turning movement, thereby permitting of the stove being moved in any direction when supported by the said supplemental legs.

The means provided for lowering the supplemental legs into position to support the stove is arranged to actuate all the legs simultaneously and this means will now be described. Brackets 7 are secured upon the under side of the bottom 1 of the stove immediately inwardly of each supplemental leg 3 and pivoted as at 8 upon each of these brackets 7 is a bar 9 which, as will be presently pointed out, serves the purpose of a lever moving the supplemental legs into and out of supporting position. By referring to Figs. 1 of the drawings, it will be seen that the bars 9 extend diagonally inwardly from each corner of the stove bottom and at their outer ends they are pivotally connected as at 10 to the upper ends of the respective legs 3. The inner ends of the bars 9 terminate short of the center of the bottom 1 and are all connected to a plate 11 arranged beneath the said bottom. This plate 11 is formed with slots 12 which are located at the corners of the plate and extend diagonally, and rivets 13 are secured through the slots and the inner ends of the bars 9, the engagement of the rivets through the slots being sufficiently loose to permit of sliding movement of the rivets in the slots and of angular movement of the bars 9 when the plate 11 is raised or lowered. At this point it will be apparent that should the plate 11 be moved upwardly, carrying with it the inner ends of the bars 9, the outer ends of these bars would be swung down thereby depressing the supplemental legs 3 and bringing the casters 5 into supporting engagement with the floor.

In order that the plate 11 may be so moved to accomplish the result stated, a shaft 14 is journaled in bearing brackets 15 arranged upon the under side of the stove bottom 1 and this shaft is provided with a square end 16 which may be engaged by a wrench, or the like, for the purpose of rotating the shaft. A cam 17 is fixed upon the shaft 14 at a point immediately below the center of the plate 11 and this cam 17 has a curved edge portion 18 and a straight edge portion 19. Normally the cam 17 is in the position shown in dotted lines in Fig. 2 of the drawing, and when in such position, the plate 11 will rest upon a substantially straight edge portion 20 which is located opposite the por-

tion 19 and the bars 9 will assume about the dotted line positions shown in the said Fig. 2, the supplemental legs 3 being supported in elevated position. When the shaft 14 is rotated in one direction, however, the curved edge portion 18 of the cam will ride against the under surface of the plate 11 and this plate will be forced upwardly until the straight edge portion 19 of the cam engages against the under side of the plate, at which time the plate will be supported in about the position shown in full lines in the said Fig. 2. As the plate 11 is forced upwardly, the inner ends of the bars 9 will be correspondingly moved and the supplemental legs 3 will be depressed so as to support the stove body for movement upon the casters 5. It will be apparent that when the straight edge portion 19 is in engagement with the under side of the plate 11, there will be no tendency for the shaft to rotate so as to allow the plate to lower and consequently the stove will be firmly supported, although it may be readily moved about upon its supplemental legs.

Having thus described the invention what is claimed as new is:—

A mechanism of the character described comprising a body, legs fixed to the body, the inner faces of said legs being concaved, brackets supported on said concave faces, sleeves carried by said brackets, standards slidably mounted in said sleeves, casters arranged on the lower terminals of the standards, brackets supported by the body and arranged adjacent the legs, levers pivotally supported by said brackets, said levers being pivotally connected to the upper terminals of the standards, a plate formed with a plurality of slots, the terminals of the levers being bent at right angles to their body portion and disposed in the same plane as the plate, pins carried by said terminals and extending through the slots in said plate, a shaft supported by the body, and a cam mounted on said shaft and disposed to contact with the plate, said cam being formed with a rounded edge and a straight edge, the plate riding on the rounded edge when it is moved by the cam toward the body to project the standards away from the body and seating upon the straight edge when the standards are moved toward the body.

In testimony whereof we affix our signatures in presence of two witnesses.

CHARLES W. F. KOCH. [L. S.]
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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."