Sept. 29, 1936. A. H. TINNERMAN 2,055,564

STOVE CONSTRUCTION

Filed Oct. 3, 1935

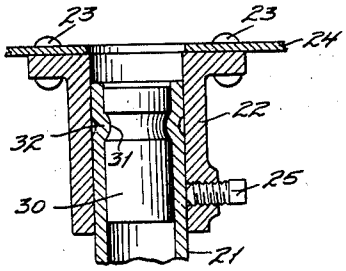


FIG. 3

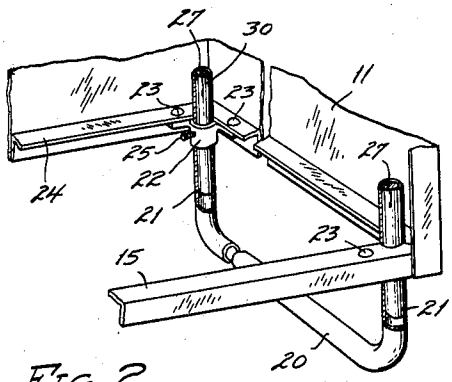


FIG. 2

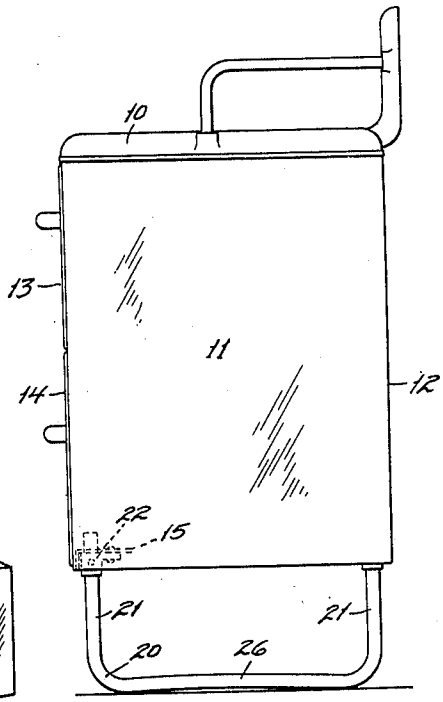


FIG. 1

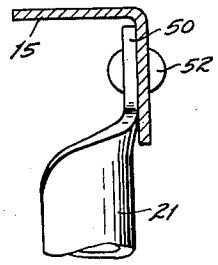


FIG. 6

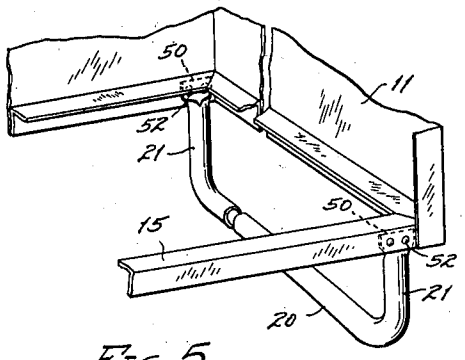


FIG. 5

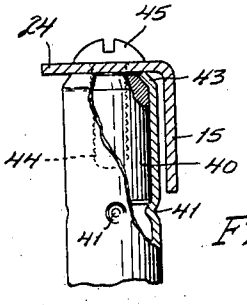


FIG. 4

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STOVE CONSTRUCTION

Albert H. Tinnerman, Cleveland, Ohio

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4 Claims. (Cl. 126—304)

This invention relates to a stove construction, and more particularly to a stove leg and means for attaching the leg to the stove. The present invention is a continuation in part of my copending application, filed March 13th, 1934, and assigned Serial No. 715,320.

In the past, stoves have been generally provided with four independent, detachable legs or supporting members, usually angular in cross-section and independently detachable from the stove. Such supports have several disadvantages for instance, frequently one of the four members is of a slightly different length than the three remaining members, resulting in an unstable support and consequent teetering of the stove. Further, it has been found that, without the use of complicated or expensive attaching structures, it is often difficult to securely connect such legs to present-day stoves. It is therefore, the general object of the present invention to provide a stove leg and connection therefor, which will overcome the disadvantages above set forth.

A further object of the present invention is to provide stove legs which may be adjustably connected to the stove to compensate for any unevenness in the floor or stove supporting surface, and which will likewise permit the height of the working surface of the stove to be adjustably positioned for use by a particular person.

One of the chief difficulties in marketing ranges, and particularly enameled ranges, has been the problem of shipping and of installation without chipping or cracking the enamel. The tendency of a stove to teeter, as previously explained, has prohibited the shipment of a range with legs attached thereto, and consequently dealers have been required to maintain sufficient personnel for assembling ranges in their display rooms and in the place of use.

An additional important object of my invention therefore, is to provide a construction by means of which a range may be assembled by the manufacturer, with the legs rigidly fastened to the body of the range, and shipped to the destination point in a crate, thus obviating the necessity for maintaining a service force by each dealer. This advantage is an important commercial one that has enabled ranges to be handled as a completed article of merchandise. An additional advantage is the fact that the legs, as I have designed them, operate as a skid upon which the range may be commercially moved from place to place whenever desired.

Referring now to the drawing, Fig. 1 illustrates a side elevation of a stove having incorporated therein my improved stove legs; Fig. 2 is a detailed perspective view looking from the rear of the stove and illustrating one method of attaching my improved stove leg to the frame of the stove. In this view, the rear panel of the stove has been removed to more clearly illustrate the invention; Fig. 3 is a vertical sectional detail of a modified form of connections between the stove leg and stove; Fig. 4 is a similar view illustrating another form of attachment of the leg to the stove; Fig. 5 is a perspective similar to Fig. 2, but illustrating a further form of connection between the supporting member and the stove; Fig. 6 is an enlarged detail of the arrangement shown in Fig. 5.

The stove in connection with which I have illustrated my invention has a top 10, enameled end walls 11 and a suitable rear wall 12. The front walls are formed by suitably enameled closure members 13 and 14. The usual burner arrangement for cooking purposes (not shown) is provided in connection with the top 10 of the stove. The various parts of the stove are carried by a suitable frame 15, portions of which are illustrated in Fig. 2.

My improved stove leg comprises, as shown in Fig. 1, a U-shaped tubular member 20 adapted to be attached to the bottom of the range. The arrangement of the leg is such that one leg is provided at each end of the stove, each leg extending substantially from the front to the rear of the stove and substantially parallel with an enameled end wall 11 thereof. These supports or legs provide a sturdy construction that can be installed at the factory if desired, and shipped integral with the range, whereas in prior constructions the practice has been to ship the legs with the stove in a dismantled condition.

To make the stove legs adjustable so as to compensate for any unevenness in the floor, I have shown in Fig. 2 the upwardly extending portions 21 of the leg 20, as entering a suitable cylindrical opening in a collar 22 which is secured, by means of suitable bolts or rivets 23 to a horizontally extending portion 24 of the stove frame 15. The vertical portions 21 of the legs are inserted in respective collars and secured therein by suitable clamping screws 25, which are threadingly carried by the sleeve 22 and are adapted to be forced inwardly against the walls of the leg portions 21.

It will be noted from Fig. 2, that the upwardly extending portion 21 of the stove legs extend a considerable distance upwardly above the flange of the frame member 24, to which the collars are attached. Such extended portions 30 provide the necessary legs for certain range models,

which for instance, do not have a broiler disposed beneath the oven compartment. In such instances, the lowermost edge of the range is spaced from the floor by an additional amount and substantially equal to the depth of the broiler compartment.

To prevent collapsing of the tube due to the pressing against its walls of the clamping screw 25, each vertical portion of the tube is preferably reinforced by a solid bar or rod 27 along at least that portion thereof which is intended to be engaged by the set screw 25.

It is obvious that with the construction shown in Fig. 2, the height of the top 10 above the stove supporting surface may readily be adjusted to suit a particular person. Likewise, one leg 21 of the U-shaped supporting member 20, may be positioned slightly differently relative to the stove than is the other leg thereof, thereby permitting the stove to be readily adjusted for uneven floor-supported surfaces. To prevent teetering of the above stove due to unevenness of the floor or stove supporting area, beneath the horizontal portion 26 of the leg, I prefer to bend or curve this portion upwardly as shown in Fig. 1, whereby the leg contacts with the supporting surface only adjacent the ends of the horizontal portion thereof.

Fig. 3 illustrates a specific form of connection between the leg and the stove. In this instance a solid plug 30 is inserted in the upper end of the vertically extending portion 21 of the leg. The plug 30 has, as shown, an annular groove 31 into which the vertical portion of the leg is imbedded, as at 32, thereby retaining the plug in position in the leg. The shank of the plug extends downwardly some distance below the embedded portion of the leg, and being solid, reinforces the tube at its point of contact with the set screw 25. In this manner, the legs may readily be adjustably positioned on the stove and secured thereto by the set screw without danger of distorting or weakening the leg structure. I have found that as each support for the stove comprises a unitary member, it matters but little, if the support on one end of the stove varies slightly in height from the support on the other end of the stove. In either case, it is easy by ordinary shop practice to so make the support that the vertical portions 21 thereof are identical in length and hence when secured to the stove, the points of attachment thereof will be the same distance from the floor engaging surface.

Fig. 4 illustrates a modified form of connection between the leg and the stove for use with even floor surfaces. As there shown, a plug 40 is inserted in the upper end of the vertically extended portion of the stove leg, and is so positioned that the upper surface of the plug is substantially flush with the upper surface of the leg. A series of indentations 41 in the leg limit the downward movement of the plug, while upward movement of the plug relative to the leg is prevented by crimping the end of the leg around the end of the plug, as indicated at 43. The plug 40 is preferably threaded axially as indicated at 44 to enable the leg to be secured to the stove by suitable bolts 45 passing through a suitable opening in the upper flange 24 of the lower stove frame member and threadingly engaging the plug.

In certain instances and especially in stoves wherein the side and end panels extend substantially close to the floor, it may be desirable, due to the shortness of the vertical portions of the legs, to secure the legs to the stove during the manufacture thereof. In this instance, the upper ends of the vertical portions 21 of the stove leg 20 are flattened as shown at 50 in Fig. 6. The flattened portions are then secured to the vertical flange 51 of the lower stove frame member 15 by suitable bolts or rivets 52.

From the foregoing description it is apparent that I have provided a stove leg construction, which is sturdy and which will insure stability to the stove. I have also so arranged the connection between the stove and the leg that the height of the stove may be readily adjusted, either to compensate for uneven floor supporting surface or to adjust the height of the stove from the supporting surface for the convenience of a specific person. It will likewise be seen that my construction is compact, readily assembled and may be produced at a comparatively low cost.

I claim:

1. A supporting leg comprising a tubular member, an article connecting member therefor having a socket therein and adapted to be secured to the article, and to receive said tubular member, means carried by the socket and adapted to engage the tubular member to secure the leg thereto, and a solid plug carried by the tubular member adjacent the point of engagement of said means therewith.

2. The combination of an article, supporting members therefor, said members being disposed adjacent the ends of the article, and extending from the front to the rear thereof, each of the members having upwardly extending portions, means on said article to receive the upper ends of said upwardly extending portions, and a solid plug to reinforce said portions.

3. A supporting member for an article, comprising a U-shaped tubular member, having arms which extend upwardly and are adapted to be attached to the body of the article and an interconnecting portion adapted to extend transversely of the body of the article, and adjacent a surface on which the article is supported, an elongated solid plug within each of said arms adjacent the upper end thereof, and means secured to the article to adjustably clamp the arms to it in the region of said plug.

4. In combination, an article having a frame, enameled parts enclosing the frame, supporting members attached to the frame independently of the enameled parts, each supporting member extending from the front to the rear of the article adjacent the ends thereof, the members being disposed substantially parallel to each other, and each having a vertically extending portion and a connecting portion, the connecting portion being positioned adjacent the bottom of the vertically extending portions, and having the intermediate part thereof extending upwardly with respect to the end parts thereof so as to engage a supporting surface at spaced points.

ALBERT H. TINNERMAN.