C. L. HOLDEN.

RANGE BOILER STAND.

APPLICATION FILED MAR. 17, 1913.

1,067,655. **Patented July 15, 1913.**

Fig. 1.

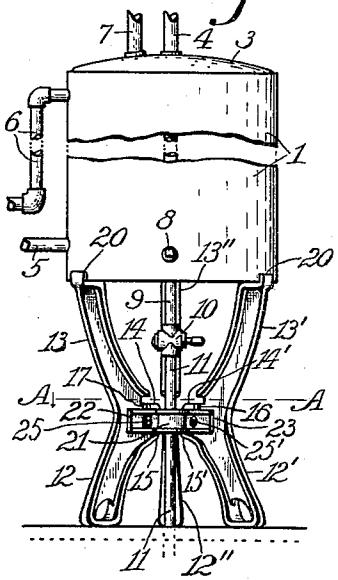


Fig. 2.

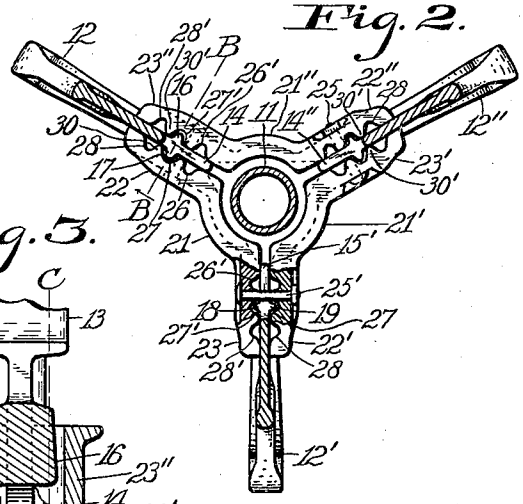


Fig. 3.

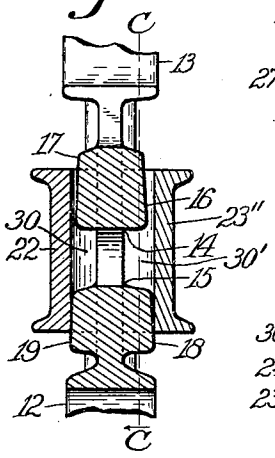


Fig. 4.

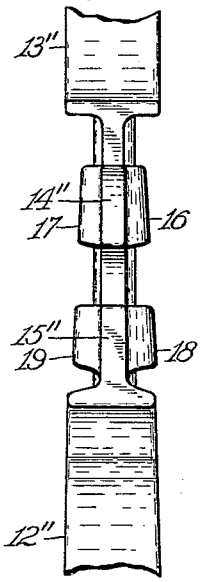


Fig. 5.

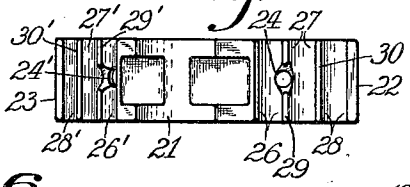


Fig. 6.

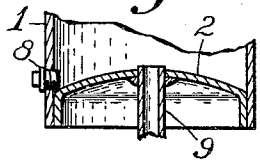


Fig. 7.

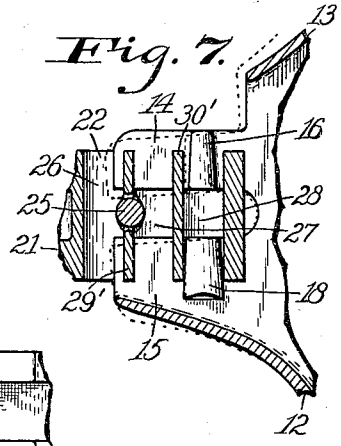
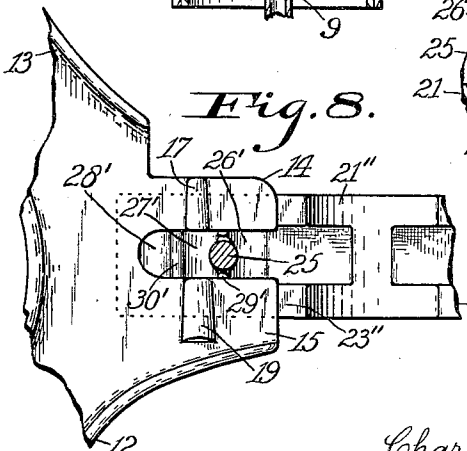


Fig. 8.



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RANGE-BOILER STAND.

1,067,655. Specification of Letters Patent. Patented July 15, 1913.

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To all whom it may concern:

Be it known that I, CHARLES L. HOLDEN, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented a new and useful Range-Boiler Stand, of which the following is a specification, reference being had to the accompanying drawings and to the letters and figures of reference marked thereon.

This invention relates to the type of stand that is adjustable to upright range boilers of different diameters, the invention having reference more particularly to stands that are adapted to support range boilers of nominal dimensions that may vary slightly in diameter, boilers from different factories designated in the trade to indicate certain diameters being usually found to be slightly at variance, either greater or less than the indicated diameter.

An object of the invention is to provide an improved range boiler stand which shall be composed of relatively few parts and suitable for convenient handling and shipment.

A further object is to provide improved means of strong construction for adjustably connecting the principal parts of the stand together so that the parts may be shipped in knocked down condition and be quickly connected together, and without requiring the workman to use extraordinary precautions against losing or misplacing detached parts thereof.

A still further object of the invention is to provide an adjustable stand of the above mentioned character that shall be so constructed as to permit a drain pipe from the range boiler to extend down directly through the stand in vertical arrangement.

The invention comprises a plurality of leg and arm members provided with variably adjustable connecting means permitting slight limited readjustment after the members are connected together, the invention consisting further in the novel features of construction and in the parts and combinations and arrangements of parts as hereinafter particularly described and also defined in the appended claims.

Referring to the drawings, Figure 1 is a side elevation of the improved stand and a range boiler thereon partially broken away; Fig. 2, is a horizontal section of the stand approximately on the plane of the line A A in Fig. 1; Fig. 3 is a fragmentary vertical section approximately on the line B B in Fig. 2; Fig. 4 is a fragmentary elevation showing the inner side of one of the leg and arm members; Fig. 5 is an elevation of the inner side of one of the parts of the means which connect the members together; Fig. 6 is a fragmentary vertical section of the boiler; Fig. 7 is a fragmentary section approximately on the line C C in Fig. 3; and Fig. 8 is a fragmentary detail of the connecting means.

Like reference characters in the different figures of the drawings indicate like elements or features of construction herein referred to.

In the drawings the numeral 1 indicates the body or shell portion of a well known type of range boiler, 2 the bottom and 3 the top or head of the boiler, 4 the cold water supply pipe, 5 the cold water circulating pipe, 6 the hot water circulating pipe and 7 the outlet or service pipe through which the hot water is conducted from the boiler. The lower portion of the boiler may be advantageously provided with a cleaning plug 8 arranged at the lowest portion to permit the removal of sediment. The bottom 2 being dished is provided at its middle portion with a drain pipe 9 to which a stop-cock 10 is connected, the pipe 9 being of such length as may be desired, and a blow off pipe 11 is connected with the stop-cock and may extend vertically down through the floor of a building and to a sewer or elsewhere, so that sedimentary matter may be conveniently drawn off from the boiler. The boilers are customarily made in three different nominal sizes but the diameters of the different sizes are not accurately determined by the different makers so that, for instance, a boiler supposed to be fifteen inches in diameter may be either slightly greater or less than that dimension and therefore would not neatly fit upon the stand designed to receive a boiler of that diameter.

In carrying out the objects of the invention, an improved leg and arm member is provided, each stand requiring three of the members which constitute three leg portions 12, 12′ and 12″ and three arm portions 13, 13′ and 13″ formed integrally with the leg portions respectively. The three members are provided respectively with lateral extensions 14, 14′ and 14″ and also other extensions 15, 15′ and 15″ extending below

and substantially parallel to the first described extensions. The said members normally stand upright and the extensions project horizontally toward a common axis. The upper one of each of said extensions has two tapering locking keys 16 and 17 on opposite sides thereof, and the lower one of each of said extensions has two similar keys 18 and 19 on opposite sides thereof, the keys on the lower extension being in alinement with the keys on the upper extension, the smaller end of each key being uppermost. The top of each arm portion is provided with an upward projecting lip 20 on the outer edge thereof to guide the boiler, and it is desirable that the lips shall be brought closely into contact with the exterior of the lower end of the boiler shell.

A novel connector comprises three identically formed parts, each being cast from one and the same pattern and when assembled in the required order constitute three cylindrical segments 21, 21′ and 21″ having approximately tangential arms 22 and 23, 22′ and 23′, and 22″ and 23″, respectively, the two arms of a part having two bolt holes 24 and 24′ therein respectively that receive clamp bolts 25 and 25′, each bolt rigidly securing two arms of two of the parts respectively to the two extensions of a leg and arm member. This arrangement provides an opening centrally of the legs through which the drain pipe 11 extends. The inner side of the two arms 22 and 23 of each connector part have vertical keyways therein, the arm 22 having three keyways 26, 27 and 28 formed so that there are two ribs 29 and 30, the opposite arm having also three keyways 26′, 27′ and 28′ and also ribs 29′ and 30′. Each keyway is uniform in depth and width throughout and of sufficient diameter to receive the thicker lower portion of either key on the lower one of the leg and arm member extensions and permitting slight lateral movement of the key on the upper one of the extensions, so that when the clamp bolts are partially tightened the upper ends of the arm portions may be slightly moved inward or outward without danger of collapsing of the stand, the keys on the lower extensions preventing material movement of the leg portions of the members. When the bolts are tightened the connector parts are rigidly secured to the extensions.

The connector parts are loosely connected together for shipment and handling, by means of the bolts 25, 25′, the leg and arm members being separate, so that there are no small parts that would be liable to become lost or misplaced during the assembling operations, and with the bolts slackened the extensions of the members are readily inserted between the arms of the companion connector parts, the bolts being received between the two extensions of the members. The members are adjusted each with respect to the others to suit the nominal size of the range boiler, after which the bolts are tightened somewhat so as to firmly connect the members together to support the boiler. After placing the boiler uprightly upon the upright stand each one or either one of the members may be slightly readjusted if required so as to bring the lips 20 close to the boiler, after which the bolts are tightened. It will be seen that when slightly readjusting the members to conform to the boiler, the members can not be accidentally moved outward to an extent that would permit the boiler to fall, and it is evident that the slight amount of adjustment required is not sufficient to destroy the symmetry of the stand and may be safely made by either unskilled or careless workmen. It is obvious, however, that the stand may be accurately adjusted to the boiler if desired or convenient before setting them up in position. It will be evident also that the drain pipe may be readily connected to the boiler or disconnected therefrom without disturbing the stand or the boiler.

By reference to Fig. 7 it will be clear that when the members are adjustably connected together the lower ends of the leg portions can not be accidentally spread apart, the key 18 being firmly held in the keyway 28.

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

1. A range boiler stand comprising a plurality of leg and arm members, each member having two lateral extensions thereon extending parallel each with the other, the two extensions having two tapering locking keys in alinement on one side thereof, and a connector comprising a plurality of arms secured to opposite sides of the two extensions of a member, one arm having a plurality of keyways therein that are each uniform in width and depth throughout, one of the keyways receiving the key and holding the larger end of the key of one of the extensions and permitting lateral movement of the key of the companion one of the extensions.

2. In a range boiler stand, the combination with a plurality of supporting members having extensions thereon provided on opposite sides thereof with locking keys, of a plurality of connector parts comprising each a curved portion and two arms extending approximately tangentially from the curved portion and to opposite sides of the extensions and secured thereto, the inner sides of the arms having each a plurality of keyways therein to receive the keys.

3. In a range boiler stand, the combination of a plurality of upright leg and arm members, each having two lateral extensions

thereon provided each with two locking keys on opposite sides thereof, one extension being below the other, the keys of the lower one of the extensions being broader than those of the upper one, a plurality of connector parts comprising arms embracing opposite sides of said extensions and having each a bolt hole therein, each arm having a keyway that is uniform in width throughout and receiving said keys, a keyway of each arm holding said broader key and permitting lateral movement therein of the key of the upper one of said extensions, and bolts secured in said holes and securing said extensions to said arms, the bolts extending between the two extensions of the respective members.

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

CHARLES L. HOLDEN.

Witnesses:
E. T. SILVIUS,
HARRY W. HOLMES.

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