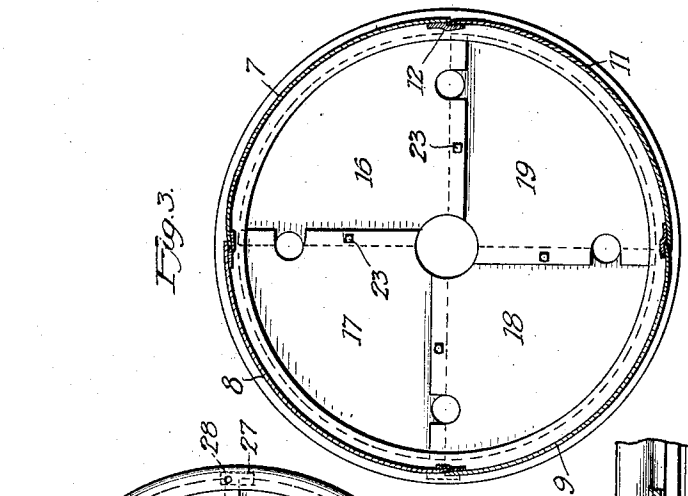
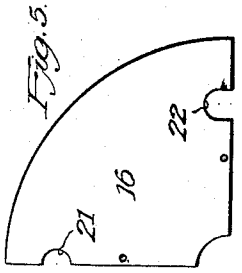
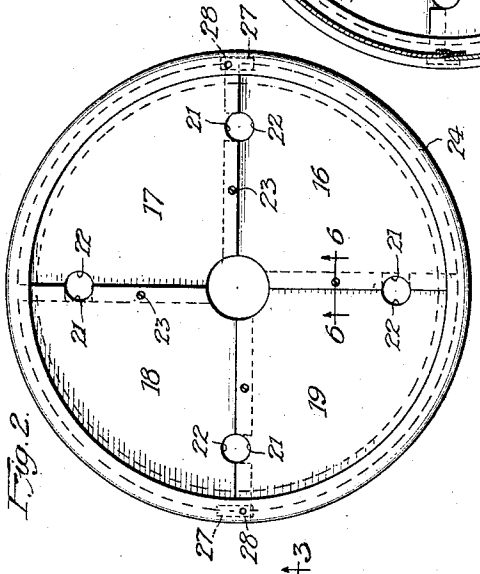
Nov. 15, 1932. G. D. HAUSER 1,887,760

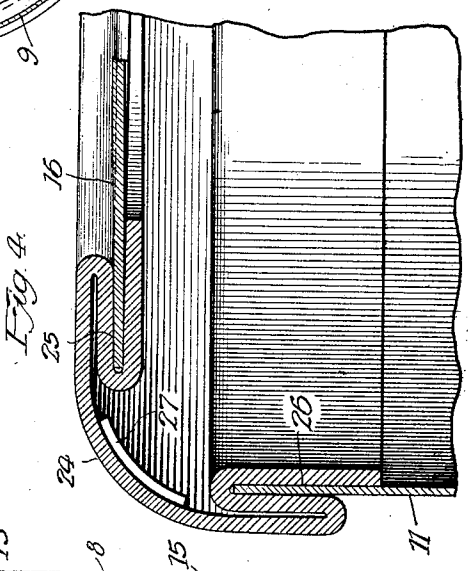
FURNACE JACKET

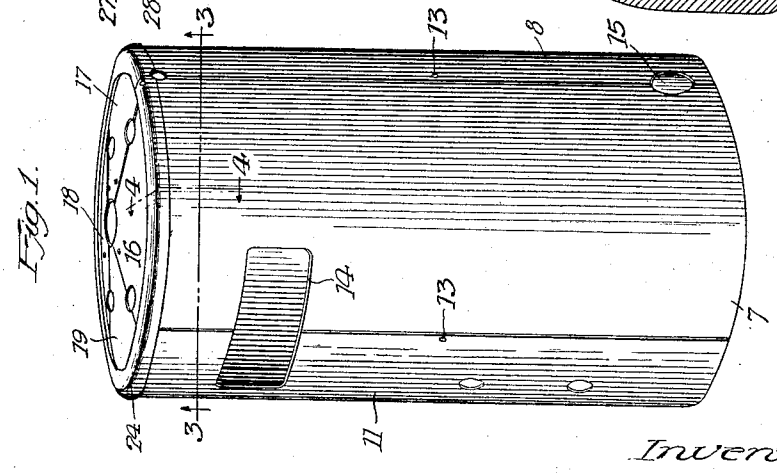
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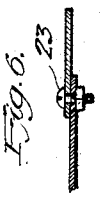












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UNITED STATES PATENT OFFICE

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FURNACE JACKET

Application filed November 21, 1929. Serial No. 408,744.

This invention pertains to jackets or casing for boilers of the type designed for heating water or generating steam for household or institution heating purposes. The jacket here shown, for illustrative purposes merely, is substantially circular in cross section adapted to fit a round boiler, but the principles of my invention may be embodied in oblong or other shaped jackets, depending upon the shape of the boiler to be inclosed.

Jackets of this general type are used primarily for insulation purposes to promote the efficiency of the boiler and incidently to render the boiler or furnace more attractive in appearance. Considerable difficulty has been experienced prior to my invention with jackets of this type because of the difficulty of assembling them, particularly upon previously installed boilers, and for the further reason that if imperfections or irregularities are present in the boiler structure or in its mounting, the jacket will be distorted so that its assembly is rendered extremely difficult and there is great likelihood of the jackets warping or pulling apart at the joints, thereby rendering them not only unsightly, but inefficient as well.

One of the primary purposes of my present invention is to provide a furnace or boiler jacket which can be shipped in knocked-down condition, thereby reducing the shipping space and transportation charges to a minimum and which can be quickly and easily assembled around a previously installed furnace without the necessity of cutting or trimming any of the jacket parts.

Another object is to provide a jacket which will afford considerable flexibility and adjustability, thereby facilitating its assembly and which will also be sufficiently flexible when assembled to conform to irregularities or imperfections in the furnace structure or in its mounting and without becoming noticeably distorted are causing separation of any of its seams or joints.

Other objects and advantages of my invention will be readily appreciated as the same becomes better understood by reference to the following description when considered in connection with the accompanying drawing.

Referring to the drawing:

Fig. 1 is a perspective view of a jacket embodying my invention,

Fig. 2 is a plan view thereof,

Fig. 3 is a sectional view on the line 3—3 of Fig. 1,

Fig. 4 is an enlarged fragmentary sectional view on the line 4—4 of Fig. 1,

Fig. 5 is a detail of one of the top wall sections, and

Fig. 6 is a fragmentary view on the line 6—6 of Fig. 2.

Referring now to the drawing more in detail, it will be observed that my improved jacket is substantially cylindrical in shape, although as previously stated, its cross sectional contour may be varied, the upright walls consisting of sections 7, 8, 9 and 11, each of arcuate shape, and provided along one upright edge with an angular strip of metal spot-welded or otherwise secured to the wall section and projecting in spaced relation beyond the edge of said section as best shown in Fig. 3. Each of these strips in conjunction with the edge of the section to which it is attached provides a groove for the reception of the opposed edge of the next adjoining section so that the sections may all be joined together by inserting the edge of each section into the groove of the adjoining section, thereby providing a cylindrical assembly possessing considerable flexibility and adjustability because of the telescopic joints between the various sections. To hold the sections against separation from each other one or more bolts or screws 13 may be inserted through suitably positioned holes in the overlapping parts.

The sections may be cut out to provide openings such as indicated by reference characters 14 and 15 to accommodate the smoke box, water pipes and other parts which extend outwardly from an assembled furnace. These openings are preferably formed with a portion in each of the adjoining sections of the jacket so that the sections may be assembled around the projections without dis-

connecting the projecting parts from the furnace or boiler.

The top of the jacket is also formed in sections indicated by reference characters 16, 17, 18 and 19, respectively, the sections being substantially duplicates of each other, and each provided, if necessary, with one or more portions 21 and 22 of openings adapted to accommodate the pipes or other parts projecting from the top of the boiler. The top wall sections are assembled upon the furnace by simply overlapping the edges thereof and the sections are held in assembled relation by a plurality of bolts 23 passing through aligned openings in the overlapping margins of the sections.

The side walls and top are assembled together into a unitary structure by means of a sectional corner ring 24 formed of sheet metal and shaped as shown in Fig. 4 to provide a substantially horizontally disposed groove 25 for the reception of the marginal perimeter of the top wall and with a downwardly opening annular groove 26 for the reception of the upper margins of the upright walls. The corner ring is made in two semi-circular parts, one end of each part having secured thereto, by spot-welding or otherwise, a strip or projection 27 which projects into the opposed end of the other ring section to which it is secured by a bolt 28, thus securing the ring sections and also the sectional top and upright walls into a unitary assembled structure.

The top sections are preferably so shaped and proportioned as to form a convex top which not only affords greater provision for expansion, contraction and flexibility generally, but also prevents dirt, moisture etc. from becoming pocketed and accumulating on the top or from falling through onto the top of the boiler. The upright walls and also the top wall are provided with heat insulating material (not shown) consisting of sheets or slabs of asbestos or other heat insulation attached to the inner faces of the wall sections in any well known or approved manner.

It will be apparent from the foregoing that my improved furnace jacket may be shipped in knocked-down condition and readily assembled about a previously installed furnace. The joints between the upright walls provide considerable latitude for relative movement between the sections, thus facilitating the assembly of the jacket and enabling it to accommodate itself to irregularities in the furnace structure. At the same time the flexibility in these various joints as well as in the joints between the top and upright walls formed by the connecting ring give the desired flexibility in the assembled structure which permits expansion and contraction and also a sufficient yield to accommodate the jacket to the furnace without causing the opening of any of its seams or joints.

The particular embodiment of my invention illustrated and described may obviously be varied in its structural details within considerable limits without departing from the essence of my invention as defined in the following claims.

I claim:

1. A furnace jacket comprising upright walls removably connected at their marginal edges by slip joints, a top wall composed of a plurality of inter-connected sections, and a ring removably embracing the upper margins of the upright wall sections and the perimeter of the top wall sections by slip joints whereby said walls are connected together into a unitary flexible structure.

2. A furnace jacket comprising a plurality of associated upright walls each of which is provided at one marginal edge with a groove for the reception of the opposed marginal upright edge of an adjoining wall whereby said upright walls are connected together through a slip joint, a ring provided with a pair of grooves opening outwardly one of which engages the upper margins of the assembled upright walls, and a top wall composed of segmental sections connected together and having their perimetral edges disposed in the other of said grooves in said ring.

3. A furnace jacket comprising a plurality of associated upright walls each of which is provided at one marginal edge with a groove for the reception of the opposed marginal upright edge of an adjoining wall whereby said upright walls are connected together through a slip joint, a sectional ring provided with a vertical groove opening outwardly with respect to said ring and engaging the upper edges of the upright walls, and a horizontal groove opening outwardly with respect to said ring, a top wall composed of segmental sections connected together and having their perimetral edges disposed in the horizontal groove formed in said ring whereby said parts are held together in a unitary flexible structure.

In witness of the foregoing I affix my signature.

GEORGE D. HAUSER.