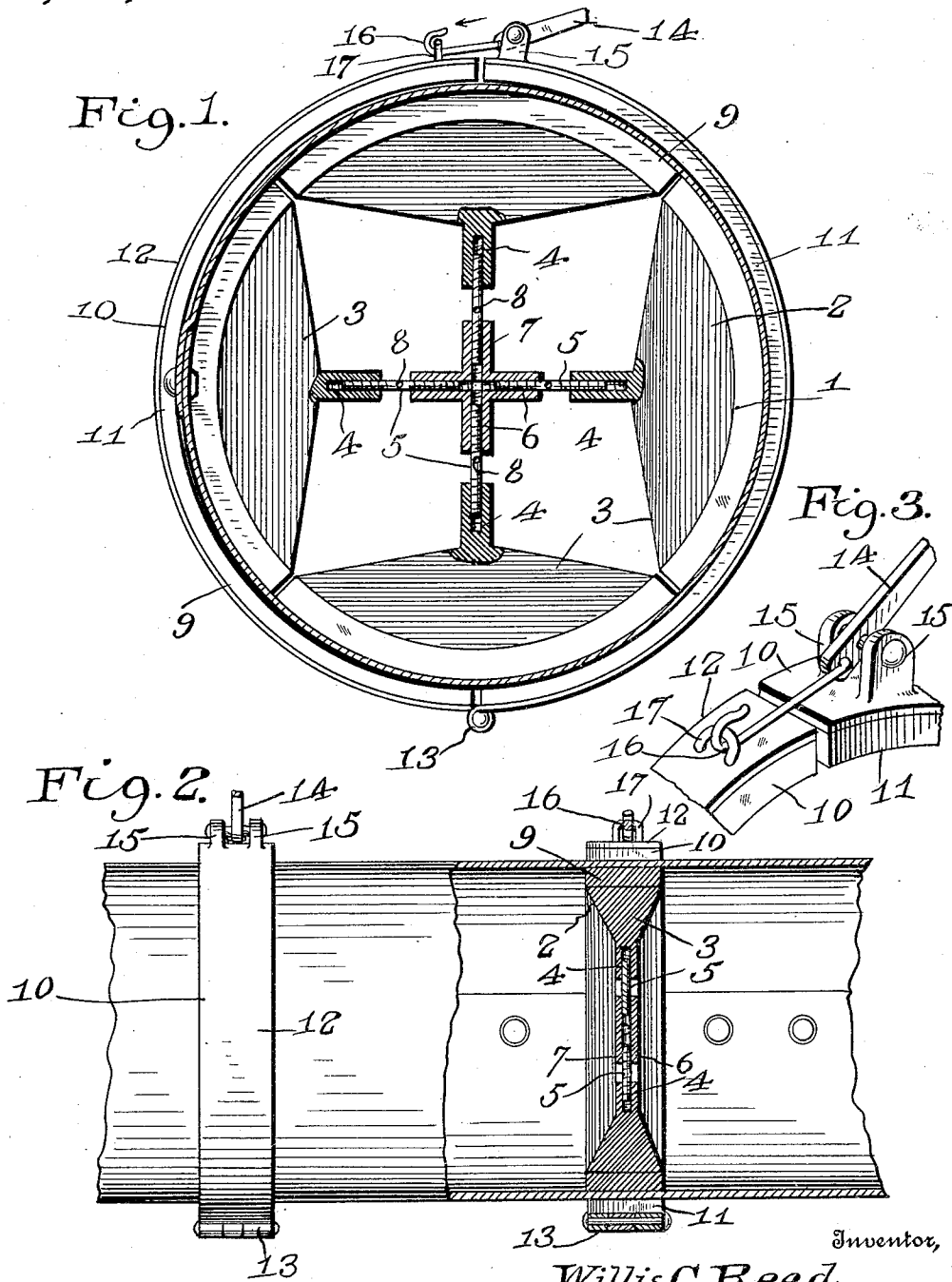


W. C. REED.
SOUND DEADENING DEVICE.
APPLICATION FILED NOV. 6, 1912.

1,063,385.

Patented June 3, 1913.



Witnesses
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UNITED STATES PATENT OFFICE.

WILLIS C. REED, OF CAMBRIDGE, ILLINOIS.

SOUND-DEADENING DEVICE.

1,063,385.

Specification of Letters Patent.

Patented June 3, 1913.

Application filed November 6, 1912. Serial No. 729,863.

To all whom it may concern:

Be it known that I, WILLIS C. REED, a citizen of the United States, residing at Cambridge, in the county of Henry and State of Illinois, have invented certain new and useful Improvements in Sound-Deadening Devices, of which the following is a specification, reference being had to the accompanying drawings.

10 This invention relates to new and useful improvements in sound deadening devices, the object of the invention being to provide a device adapted to be placed upon a boiler when the same is being riveted to deaden the ringing sound which generally comes from this operation so as to prevent the people who work at this trade from becoming deaf.

20 Another object of the invention is to provide a sound deadening device which can be quickly applied to a boiler and which at the same time can be readily removed therefrom.

25 Another object of the invention is to provide a device of this character which will possess advantages in points of efficiency and durability, is inexpensive to manufacture and at the same time is simple in construction and operation.

30 With the above and other objects in view, the invention consists in the novel features of construction and the combination and arrangement of parts hereinafter more fully described, pointed out in the claims and shown in the accompanying drawings in which,

35 Figure 1 is a cross section of a boiler illustrating my improved device applied thereto. Fig. 2 is an elevation of a boiler partly in section illustrating two of my improved sound deadening devices applied thereto, one being shown in elevation and the other in cross section. Fig. 3 is an enlarged detail perspective view illustrating the means for securing the outside band to the boiler.

40 Referring more particularly to the drawings, 1 indicates that portion of the device which is to be arranged on the inside of the boiler and which comprises a circular body constructed of four sections. Each of these sections comprises an arcuate rim 2 having an enlarged portion 3 formed upon the inner face thereof, which tapers toward the center of the device and is provided with an internally threaded socket 4 in which is adapt-

ed to be threaded one end of a tightening rod 5. The other end of the rod 5 is threaded into one of the internally threaded sleeves 6 which extend outwardly from the spider, said spider being arranged within the center of the body 1. The rods 5 which connect the sockets 4 with the threaded sleeves 6 of the spider are provided with the centrally arranged openings 8 into which a lever or other instrument may be inserted to rotate the rods and move the portions 3 to or away from the central spider 7. Secured to the rim 2 of each of the sections are the rubber sections 9 which are engaged with the inner wall of the boiler and are held securely in engagement therewith by turning the rods 8 and forcing the portions 3 away from the center spider 7. In order to remove the circular body 1 from the inside of the boiler, the rods 5 are turned, drawing the sections of the body inwardly toward the center thereof until the rubber rim is disengaged from the inner wall of the boiler.

45 Arranged upon the outer side of the boiler and in a substantially diametrical alinement with the section on the inside of the boiler is a sectional rim 10 which comprises the two semicircular sections of rubber as shown at 11 secured to the inner faces of the two semicircular steel bands 12. The sections 12 are hingedly secured together as shown at 13 and are tightened upon the outer face of the boiler by means of the pivoted lever 14, said lever being pivotally mounted between the upwardly extending ears 15 formed upon one end of one of the sections 12. The lever 14 is provided at one end with a hook member 16 which is adapted to engage the intermediate portion of the yoke 17 which is secured to one end of one of the sections 12. Thus it will be seen that by pressing the lever in the direction indicated by the arrow, the ends of the sections 12 will be brought toward each other so as to tighten the sections 11 against the outside of the boiler.

50 From the above description it will be readily apparent that when my improved device is applied as above described, the ringing sound which generally issues from the boiler when the same is being riveted will be almost entirely deadened, in fact the larger volume of sound which issues therefrom will be entirely deadened. It will also be apparent that the device is simple

in construction, can be readily applied or removed and can also be manufactured at an extremely low cost.

While I have shown and described the preferred form of my invention, it will be obvious that various changes in the details of construction and in the proportions may be resorted to for successfully carrying my invention into practice without sacrificing any of the novel features or departing from the scope of the appended claims.

What I claim is:—

1. In a sound deadening device, the combination of a circular body formed in sections and adapted to be arranged within a boiler, a rubber facing upon each of said sections, an internally threaded socket formed upon each of said sections and extending inwardly toward the center of the body, and means engaging with said sockets for moving the sections toward and away from the inner wall of the boiler to which the device is secured, and means engaged around the outer side of the boiler and adapted to cooperate with the body on the inside of the boiler to deaden any ringing sound therefrom.

2. In a sound deadening device, the combination of a circular body formed in sections, a rubber secured to each of said sections, an internally threaded socket formed integral with each of said sections and extending inwardly toward the center of the body, a spider centrally arranged within the body, outwardly extending internally threaded sleeves formed integral with the spider and arranged in alinement with the sockets on each of the sections, threaded rods having one of their ends engaging in the sleeves and their other ends engaging within the sockets whereby the turning movement of the rods will move the sections toward and away from the inner wall of the boiler to which the device is secured and means arranged around the outer side of the boiler and cooperating with the circular body to deaden any ringing sound from the boiler.

3. In a sound deadening device, the combination of a circular body adapted to be arranged within a boiler, a rubber facing formed upon the outer periphery of said body and adapted to engage with the inner wall of the boiler, and means arranged around the outer side of the boiler and cooperating with the body within the boiler, to deaden any ringing sound from the boiler.

4. In a sound deadening device, the combination of means adapted to be arranged within a boiler and adapted to engage the inner wall thereof, and means adapted to be arranged upon the outer side thereof and

coöperating with the first means upon the inside to deaden any sound therefrom.

5. In a sound deadening device, the combination of a circular body formed in sections and adapted to be arranged in a boiler, a rubber facing formed upon each section, an internally threaded socket formed integral with each section and extending inward toward the center of the body, a spider arranged within the center of the body, internally threaded sleeves extending outwardly from said spider and arranged in alinement with the sockets, and threaded rods having one of their ends engaging within the sockets and their other ends engaged with the sleeves whereby the turning movement of the rods will move the sections toward and away from the inner wall of the boiler.

6. In a device of the character described, the combination with means adapted to be arranged within a boiler adapted to engage the inner wall thereof, of a sectional ring adapted to be arranged upon the outer side of the boiler in alinement with said means to deaden any ringing sound from the boiler.

7. In a device of the character described, the combination with means adapted to be arranged within a boiler and adapted to engage the inner wall thereof, of a ring comprising two hingedly connected semi-circular sections, a sound deadening lining upon the inner face of said ring, a pivoted lever carried by the free end of one of said sections, a hook member secured to the outer end of said lever, an eye carried by the free end of the other section and adapted to be engaged by the hook whereby said sections will be securely applied to the exterior of the boiler and cooperate with said means for deadening any ringing sound therefrom.

8. In a device of the character described, the combination of a circular body formed in sections and adapted to be arranged within a boiler, a sound deadening facing upon the outer periphery of said body, means for moving said sections toward and away from the inner wall of the boiler to which the device is secured, a sectional ring arranged upon the outer side of the boiler in alinement with said body, a sound deadening lining secured to the inner face of said ring and means for securing the sections of said ring together whereby the ring will cooperate with the body to deaden any ringing sound from the boiler.

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

WILLIS C. REED.

Witnesses:

LEONARD E. TELLEEN,
VICTOR F. BOLTENSTERN.