

May 13, 1930.

J. R. COE

1,758,824

TRUNNION FOR BARRELS OR OTHER ARTICLES

Original Filed Feb. 18, 1927

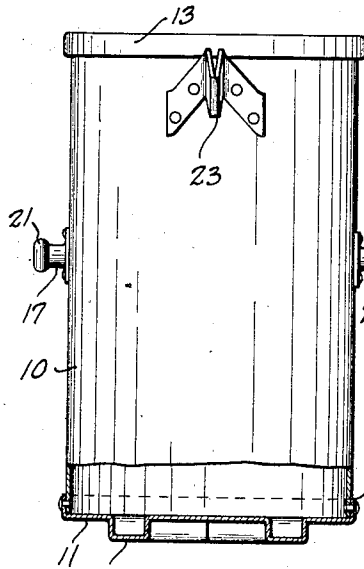


Fig. 1.

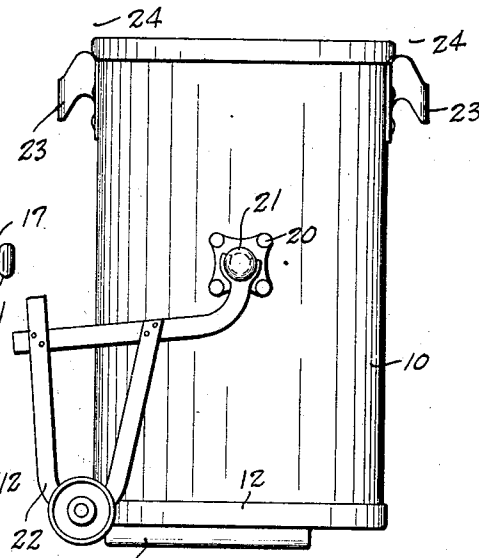


Fig. 2.

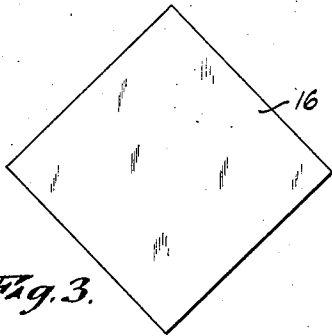


Fig. 3.

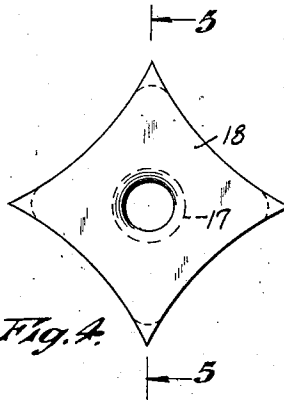


Fig. 4.

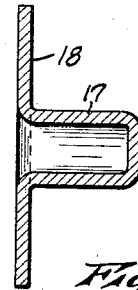


Fig. 5.

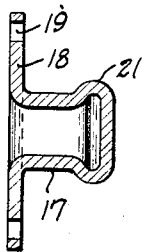


Fig. 6.

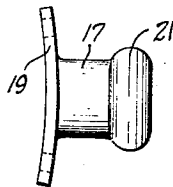


Fig. 7.

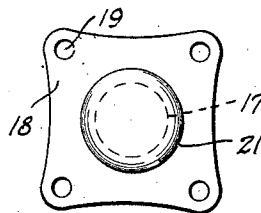


Fig. 8.

Inventor

James R. Coe
Hooper & Davis
Attorneys

UNITED STATES PATENT OFFICE

JAMES R. COE, OF WATERBURY, CONNECTICUT, ASSIGNOR TO THE AMERICAN BRASS COMPANY, OF NEW HAVEN, CONNECTICUT, A CORPORATION OF CONNECTICUT

TRUNNION FOR BARRELS OR OTHER ARTICLES

Original application filed February 18, 1927, Serial No. 169,208. Divided and this application filed May 16, 1928. Serial No. 278,279.

This invention relates to barrels, and particularly to a barrel for heavy duty in factories manufacturing metal articles for holding and carrying the scrap and other pieces of metal in the process of manufacturing. For example, in brass mills or similar mills articles are made from a large number of different alloys, each alloy involving different proportions of metals and different metals, and as the scrap is saved and used it is important to keep the scrap for each metal and each alloy separate, and it is, therefore, necessary to have about the mill in various locations where scrap is produced or used a large number of barrels to hold this scrap separate and also to carry it to different departments or locations in the mill where it is to be processed. These barrels are subjected to very severe handling and it has been difficult to make a barrel which would stand up any length of time under this use. It will be obvious that if the carrying means for the barrel should fail during transportation serious damage may result in that various types of alloys may become mixed and also workmen may be seriously injured.

It is, therefore, an object of the present invention to produce a barrel structure which is sufficiently strong to stand this rough usage.

It is also an object of the invention to construct a barrel which can be more easily and efficiently handled about the mill and transported from one department to another.

It is a further object of the invention to provide an improved trunnion construction for this type of barrel.

With the above and other objects in view, the invention consists in certain novel features of construction, combinations and arrangements of parts as will be more fully described, a construction involving the preferred form of my invention being shown in the accompanying drawing. In this drawing,

Fig. 1 is a side elevation of a barrel con-

structed according to my invention with the lower end of the head in section to show the strengthening means.

Fig. 2 is a side elevation of the barrel looking from the right of Fig. 1 and also showing how the barrel may be transported on a trunnion type of truck.

Fig. 3 shows a blank from which my improved trunnion may be formed.

Fig. 4 is a rear elevation showing the trunnion partially formed.

Fig. 5 is a transverse section substantially on line 5—5 of Fig. 4.

Fig. 6 is a transverse section of the trunnion practically completed.

Fig. 7 is a side elevation of the completed trunnion, and

Fig. 8 is an end view looking from the right of Fig. 7.

This application is a division of my prior application for barrel, Serial No. 169,208, filed February 18, 1927.

The barrel, as shown in Figs. 1 and 2 comprises a cylindrical body 10, usually of heavy sheet metal, and closed at its lower end by a head 11 which usually has a flange 12 riveted to the body, and the top edge of the barrel may be strengthened by any suitable means, such as folding it upon itself to form a strengthening flange 13 or by other suitable strengthening means. The head 11 may be strengthened so that it will not readily bend out of shape and also so that it will be able to hold the heavy weights carried. The barrel head is, therefore, formed with a downwardly extending rib 14 which is channel shaped or substantially U-shape in cross section and constructed and arranged as pointed out in my prior application above mentioned.

The cast iron trunnions ordinarily used in the ordinary type of barrels are easily broken causing considerable trouble and damage. I have, therefore, devised an improved type of trunnion 15 which has the required strength and does not add materially to the weight of

the barrel. This trunnion is made of a single piece of relatively heavy sheet metal such as boiler iron. It is first made into a substantially rectangular blank 16 and then the central portion is pressed and drawn laterally to form a tubular bearing portion 17, leaving a base plate portion 18 extending transverse the axis of this bearing and which may be provided with openings 19 for bolts or rivets 20 to fasten the trunnion to the side of the barrel. It is also preferred to upset the free end of this tubular portion somewhat to provide a stop rib 21 to prevent the trunnion sliding out of this bearing. This stop rib is shown more clearly in Figs. 6 and 7. The base portion 18 may also be curved somewhat, as shown in Fig. 7, to correspond with the curvature of the side of the barrel.

Each barrel is provided with a pair of these trunnions located on diametrically opposite sides thereof and somewhat above the horizontal center line of the barrel so that when filled they will tend to stand in the upright position. These barrels may also be easily transported by means of a trunnion truck of any standard type indicated at 22 in Fig. 2.

These trucks are ordinarily used for transporting the barrels short distances or carrying them to a common station where a number of barrels may be simultaneously transported by a special conveyor means to the storage room or any other desirable location. For this purpose the barrels are each provided with a pair of lifting hooks 23 and these hooks are arranged on diametrically opposite sides of the barrel adjacent the top thereof and in a plane at substantially right angles to the plane of the trunnions, so that when a number of barrels are brought to the collecting station by the trucks they may be set up in alignment with the hooks on the same side thereof all facing in the same direction. The trunnions of adjacent barrels by engaging at their free ends cooperate to space the barrels at the proper distances apart and indicate the proper arrangement of the barrels. This places all the barrels with their lifting hooks 23 in alignment on each side of the row and properly spaced from each other for simultaneous engagement by the loops or hooks 24 on conveyor tongs. These tongs are not shown in detail in this application as they are preferably of the construction shown in my copending application, Serial No. 169,208, filed February 18, 1927. These tongs include two simultaneously operating sets of loops or hooks 24, one on each side adapted to simultaneously hook onto the rows of hooks on the opposite sides of a line of barrels, and they are moved outwardly and inwardly from and to engagement with the hooks by means of suitable mechanism clearly described and shown in my said copending application. Thus an entire line of these barrels may be engaged simultaneously by the loops or hooks

of the tongs and carried in one operation to a storage bin or other location desired.

It will be apparent from the foregoing description that my improved trunnion is a very strong and rigid construction, and one which will not be easily broken, and therefore, will stand up under the hard usage to which these barrels are subjected. I wish it to be distinctly understood, however, that although I have shown and described the trunnion as used on a barrel it is by no means confined to such use, but is equally adapted for use on a box or any other article which it is desired to lift or revolve about an axis.

Having thus set forth the nature of my invention, what I claim is:

1. A barrel of the class described having outwardly extending diametrically oppositely located trunnions on the side walls thereof adapted to form positioning means adapted to cooperate with the trunnions of similar barrels to uniformly position a plurality of said barrels in line, and a pair of hooks secured to the sides of said barrel adjacent the top thereof and diametrically arranged in a plane at substantially right angles to the plane of the trunnions so that they will be arranged in alignment to be simultaneously engaged by a common carrying means.

2. A barrel having trunnions on its opposite side walls comprising a single piece of sheet metal including a base to engage the surface of the barrel, and means to secure said base to the barrel, the central portion of said piece of metal extending outwardly to form a circular tube and of a larger diameter at its free end to provide a stop rib at this end.

3. A barrel having trunnions on its opposite side walls, each trunnion being formed from a single piece of sheet metal having a tubular central portion forming the bearing portion of the trunnion, said tubular portion being closed at its outer end and of a larger diameter to form a stop rib, and the other end being arranged transversely of said tubular portion to form a base to engage the surface of the barrel, and means for securing said base to the barrel.

4. A trunnion for a barrel or other article to be supported comprising a single integral piece of sheet metal having a base to engage and be secured to the side of the article and a tubular portion extending outwardly from said base in a direction transverse the plane of the base to form the bearing portion of the trunnion.

5. A trunnion for a barrel or other article to be supported comprising a single piece of sheet metal including a base to engage the surface of the article, and means to secure said base to the article, the central portion of said piece of metal extending outwardly to form a circular tube and of a larger diameter at its free end to provide a stop rib at this end.

6. A trunnion for a barrel or other article
to be supported formed from a single piece
of sheet metal having a tubular central por-
tion forming the bearing portion of the trun-
nion, said tubular portion being closed at
5 its outer end and of a larger diameter
to form a stop rib, and the other end being
arranged transversely of said tubular portion
to form a base to engage the surface of the
article, and means for securing said base to
10 the article.

In testimony whereof I affix my signature.
JAMES R. COE.

15

20

25

30

35

40

45

50

55

60

65

CERTIFICATE OF CORRECTION.

Patent No. 1,758,824.

Granted May 13, 1930, to

JAMES R. COE.

It is hereby certified that error appears in the above numbered patent requiring correction as follows: In the grant and in the heading to the printed specification the residence of the assignee is erroneously given as "New Haven, Connecticut", whereas said residence should have been given as "Waterbury, Connecticut"; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 24th day of June, A. D. 1930.

(Seal)

M. J. Moore,
Acting Commissioner of Patents.