Oct. 6, 1953 C. O. SCHMIDT, JR 2,654,458

UNLOADER ATTACHMENT FOR TRIPE SCALDERS

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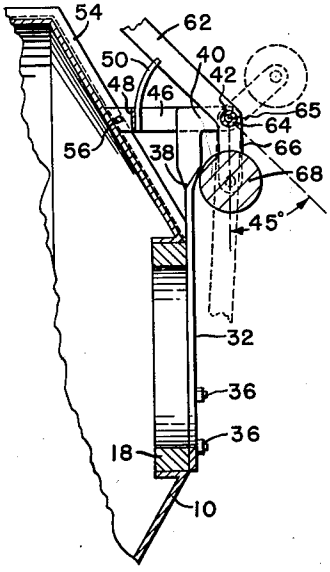

FIG. 3

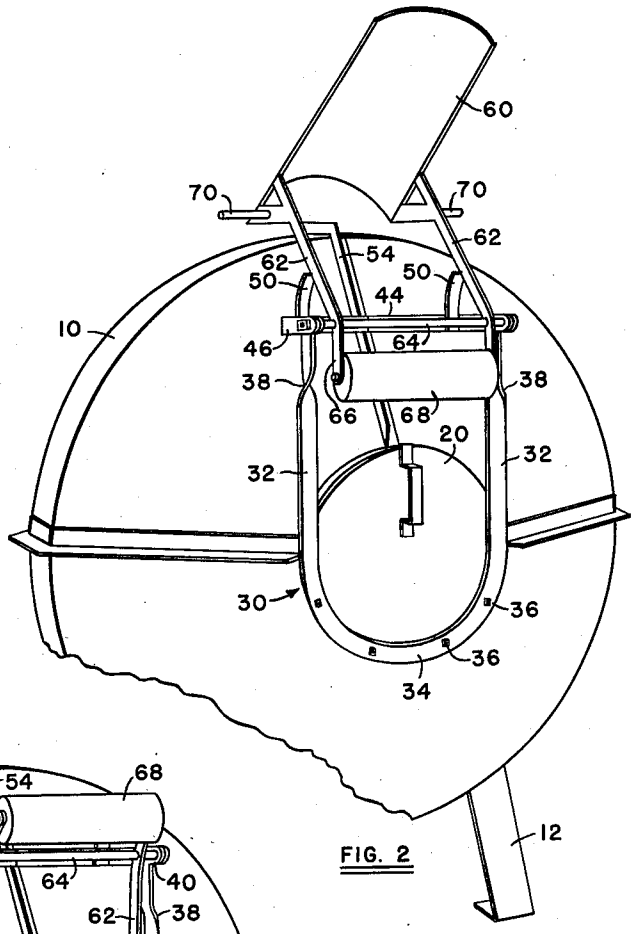

FIG. 2

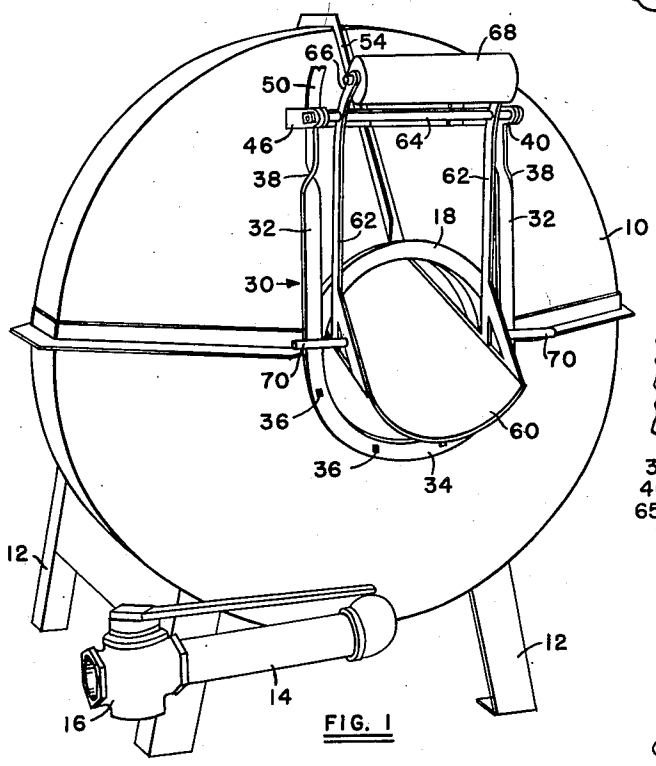

FIG. 1

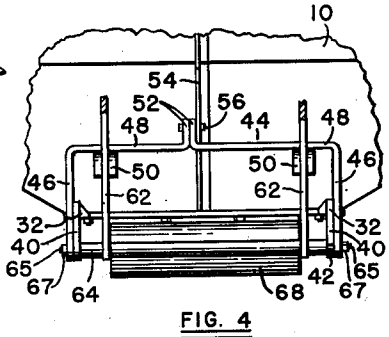

FIG. 4

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UNLOADER ATTACHMENT FOR TRIPE SCALDERS

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2 Claims. (Cl. 193—18)

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This invention relates to unloaders and more particularly to an unloader attachment for a tripe scalder.

An object of the invention is to provide a heavy duty, light-weight, highly efficient unloader attachment for tripe scalders, and the like.

Another object of the invention is to provide an unloader attachment which includes a chute swingable between one or the other of two normal positions, and to means for maintaining the chute in one or the other of its normal positions and against accidental or unintentional displacement therefrom.

A further object of the invention is to provide an unloader attachment which includes a substantially U-shaped mounting bracket constructed and arranged to be securely, though releasably, fastened directly to portions of the charge-discharge port of a tripe scalder.

Still a further object of the invention is to provide an unloader attachment having the hereinabove described characteristics and which includes stop means engageable by the chute-supporting arms for defining the two normal positions to which the chute is movable.

Another object of the invention is to provide an unloader attachment for a tripe scalder of the type which includes an outer housing having a circular charge-discharge port therein which is so constructed and arranged as to not interfere with the operation of the tripe scalder and which may be attached thereto without necessitating any changes in the structural details of the tripe scalder.

These and other objects are attained by the means described herein and as disclosed in the accompanying drawings, in which:

Fig. 1 is a front perspective view of a tripe scalder provided with an unloader attachment embodying the teachings of the present invention, said unloader illustrated in a fully lowered, operative position.

Fig. 2 is a view similar to Fig. 1 wherein the unloader chute has been swung upwardly to its fully raised, inoperative position.

Fig. 3 is a partial vertical section taken through the tripe scalder housing for more clearly illustrating the mode of attachment and the operative range of the unloader chute.

Fig. 4 is a partial top elevational view of Fig. 3.

The numeral 10 denotes generally the outer housing of a commercial tripe scalder, it being noted that the present invention is neither directed to nor concerned with the structural or operative details of the scalder, said devices being well known to the industry.

As best illustrated in Fig. 1, housing 10 may be suitably supported upon legs 12. A suitable fluid is circulated through the housing via inlet pipe 14, the flow of fluid therethrough being controlled by a suitable valve 16. The fluid entering pipe 14 is discharged through a suitable outlet, not illustrated, provided in the back of the housing. In passing, it will be noted that a rotatable basket is mounted and completely contained within outer housing 10 for imparting a tumbling action to its contents which are thoroughly saturated and washed with the fluid circulated through the housing.

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The numeral 18 denotes a circular charge-discharge port provided in the front portion of housing 19, said port controling access to the interior of the housing. A suitable port closure member 20 is receivable within port 18 during those periods of time when the inner basket is to be rotated, said closure member effectively sealing the contents of the housing therein.

The unloader attachment of the present invention comprises a substantially U-shaped mounting bracket 30 including a pair of laterally spaced side elements 32 interconnected at their lower ends as at 34, wherein the radius of portion 34 and the lateral spacing of side elements 32 is of a dimension approximating the diameter of port 18.

The mounting bracket may be securely, though releasably fastened to the outer face of port 18 by means of suitable fastening means such as, by way of example, bolts 36, whereby the bracket will be firmly fastened to the device.

In the preferred embodiment the upper ends of the side elements may be turned 90° as at 38, the upper ends of each of said elements extending forwardly as at 40, one being provided with a U-shaped slot 42; see Fig. 3.

As best disclosed in Fig. 4, a U-shaped member 44 including a pair of laterally spaced end members 46 connected at one end to a cross member 48 is provided, wherein the laterally spaced end members 46 are constructed and arranged whereby to overlappingly engage the outer faces of the upper ends of the laterally spaced side elements 32 of the mounting bracket.

As best disclosed in Figs. 3 and 4, a pair of upwardly and forwardly projecting stop members 50 are secured to and carried by cross member 48. In the preferred embodiment of the invention, composite cross member 48 is provided with rearwardly projecting portions 52 dimensioned to engage the inclined wall of the outer housing adjacent fin 54, to which it may be securely, though releasably, fastened as by means of a bolt, or the like, 56, whereby the upper portion of the unloader attachment will be rigidly mounted relative to the housing.

A chute 60 is secured to and carried by the free outer ends of a pair of laterally spaced chute-supporting arms 62. A hollow shaft 64 spans portions of arms 62 remote from the chute, the ends of said shaft projecting outwardly beyond

arms 62. Shaft 64 is welded or otherwise fixed to arms 62 and is of a length so as to fit between portions 40 of side elements 32. A second, smaller shaft 65 extends through hollow shaft 64 and through openings in portions 40 of side elements 32 and end members 46. Nuts 67 or other fastening means secure that shaft to end members 46. The two shafts are dimensioned so as to allow free rotation of shaft 64 about shaft 65.

Those portions of arms 62 beyond the axis of shaft 64 terminate in end arm members 66 which are inclined approximately 45° to the axis of arms 62 between shaft 64 and chute 60, as illustrated in Fig. 3. A counterweight 68 is secured in spanning relationship to the free outer ends of portion of the end arm members 66, as illustrated.

In the preferred embodiment of the invention the free outer ends of stops 50 are notched whereby to receive arms 62 when the chute has been moved to a fully raised, non-operative position as illustrated in Fig. 2 and as indicated in the solid lines of Fig. 3. When the chute has thus been shifted to its fully raised, non-operative position, the counterweight will be located below, and in substantial vertical alignment with, shaft 64, thereby positively though yieldably maintaining the chute in its fully elevated position against accidental or unintentional displacement therefrom.

With reference now to Fig. 1, it will be noted that when the chute has been moved to a fully lowered, operative position, it will be inserted into port 18 whereby the contents of the rotatable basket within housing 10 may be expeditiously and automatically discharged via the chute.

In the preferred embodiment of the invention, a pair of laterally projecting interfering members 70 are secured to and carried by those portions of the chute-supporting arms 62 adjacent the chute, said interfering members constructed and arranged whereby to abuttingly engage portions of the outer face of the mounting bracket, thereby determining and limiting the amount by which the chute is introduced into the interior of the housing when in a lowered, operative position.

It will be observed that the counterweight will be swung or shifted to a position above and forward of shaft 64 when the chute has been fully received within housing 10 for thereby exerting continuous, yet yieldable force operative for maintaining the chute in the position illustrated in Fig. 1.

From the foregoing, it will be noted that I have provided an unloader attachment for a tripe scalder which may be mounted to the outer periphery of the charge-discharge port, said unloader including a chute movable between a fully raised, inoperative position above the housing of the device or to a lowered, operative position located interiorly of the device. It will be further noted that the unloader attachment includes stop means 50 and interfering members 70 for limiting the raised and lowered positions of the unloader, without in any way interfering with the structural or operational characteristics of the tripe scalder with which it has been associated.

As clearly evident from Fig. 2 the unloader is located over or above housing 10, thereby affording complete access to all portions of the scalder.

It should be understood that various changes in the structural details of the device may be made, within the scope of the appended claims, without departing from the spirit of the invention.

What is claimed is:

1. A preformed unitary unloader attachment for a conventional tripe scalder, which tripe scalder has a casing including a wall formed with a central port bordered by a stiff ring constituting a throat; said unloader comprising a U-shaped bracket formed of a strip of stiff sheet metal and having vertical legs connected at lower ends by an arcuate bridge portion integral therewith, said bracket being of dimensions adapting it to be mounted about the port of the scalder with its bridge portion bearing against the outer surface of the ring for a portion of the circumference thereof and registering with the lower portion of the throat and its legs projecting upwardly above the port at opposite sides thereof, the legs being twisted near their upper ends and terminating in arms projecting forwardly from upper ends of said legs at right angles thereto, a substantially U-shaped yoke having a bridge adapted to be immovably secured horizontally to the outer surface of the wall of the scalder in upwardly spaced relation to the port, the yoke having horizontal arms projecting forwardly from ends of its bridge along outer surfaces of the arms of the bracket and formed with openings registering with openings in the arms of said bracket, a rod extending horizontally between the arms of said bracket and having end portions mounted through the registering openings, a tubular shaft rotatable about said rod, a chute, an arm extending from each side edge of one end portion of said chute and rigidly secured to said tubular shaft, each chute-carrying arm having a short end portion extending diagonally of the main portion of the said arm from the tubular shaft, a counterweight for said chute extending between and carried by outer ends of the diagonally extending end portions of the chute-carrying arms and disposed in spaced relation to the opposite side of the shaft from the chute, tongues carried by the bridge of said yoke and extending upwardly and forwardly therefrom in position for engagement of edges of their upper ends by the arms of the chute to limit rearward movement of the chute and its arms over the tubular shaft when the chute is swung upwardly and rearwardly to a raised position over the shaft, said chute entering the port and being disposed forwardly at a downward incline when swung forwardly and downwardly and rearwardly to a lowered position for use in which its rear portion passes through the ring, and the counterweight being at the same time swung upwardly between the arms of the yoke and forwardly over the shaft past a dead center and thereby disposed forwardly of the tubular shaft in position for urging the chute rearwardly through the port.

2. A preformed unitary unloader attachment for a conventional tripe scalder of the construction defined in claim 1, wherein the arms of the chute adjacent the chute are provided with laterally extending elements dimensioned to contact the vertical legs of said U-shaped bracket for limiting movement of the chute rearwardly through the port.

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