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HANGER ASSEMBLY

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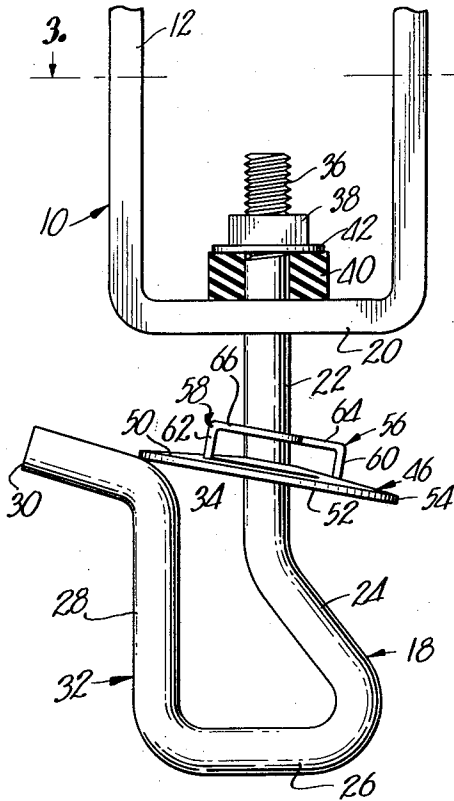


Fig. 2.

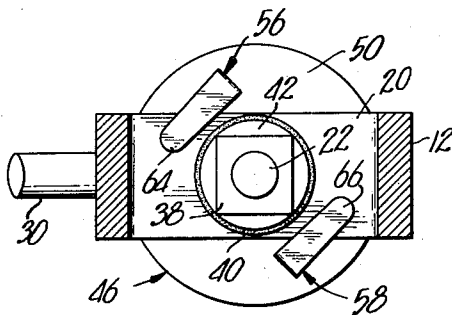


Fig. 3.

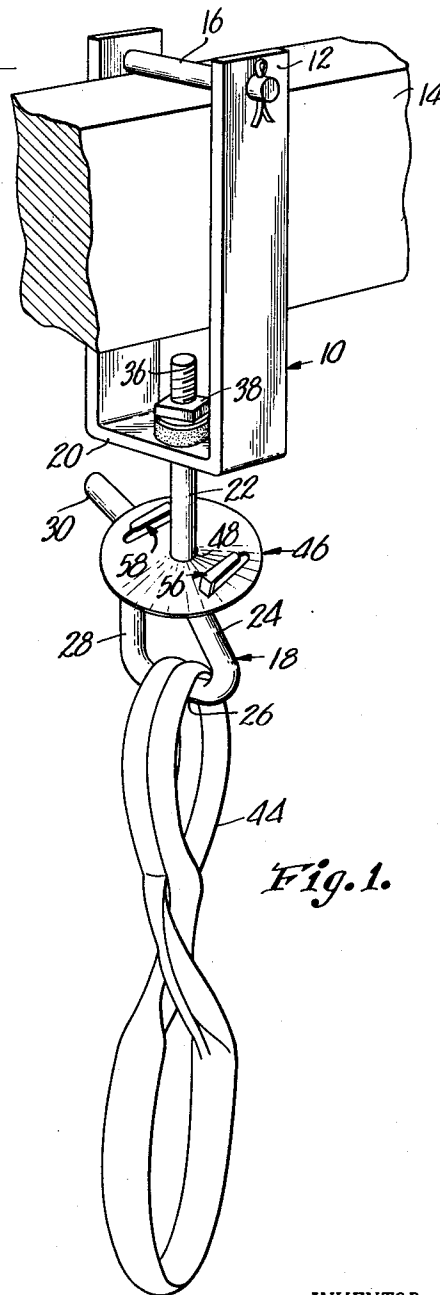


Fig. 1.

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HANGER ASSEMBLY

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This invention relates to a hanger assembly and more particularly such an assembly which is to be used in conjunction with meat handling equipment and which is intended to suspend sections of meat when the same are being transported or stored.

It is well known that various hook and hanger means have been designed which are intended to receive a side of beef or the like and that such hanger means are used when storing and transporting such portions of meat. A common problem with such conventional hangers is the fact that during transportation of meat suspended therefrom and due to the vibration of the transporting vehicle the meat becomes disengaged from the hanger and falls upon the floor or the like of the transporting vehicle causing much damage to the meat.

It is therefore a primary object of this invention to provide a hanger assembly which can be used in railroad cars, trucks and the like which are intended to transport meat and which, due to the nature of its construction will prevent the meat from becoming disengaged from the hanger assembly during transportation.

It is further an object of this invention to provide a hanger assembly which may be used in conjunction with the loop type hanger described in my copending application, Serial No. 8,618, and which is intended to receive the loop type hanger as described therein, the present hanger assembly and the loop type hanger being intended to be utilized together in the handling and transportation of meat.

A yet further aim of the present invention is to provide a hanger assembly including a clevis, there being a hook suspended from said clevis and means carried by the shank of the hook movable to and from a position closing the mouth of the hook.

Another object of this invention is to provide a conical plate carried by the shank of the hook of the hanger assembly, which conical plate can be locked in a lowered position and which plate has means formed integrally therewith for engaging the bight of the clevis whereby the plate may be retained in a raised position with the mouth of the hook open for receiving the article to be suspended therefrom.

Other objects and aims of this invention include details of construction of the hanger assembly which will become apparent from the following specification and accompanying drawing herein:

FIGURE 1 is a perspective view showing the hanger assembly as the same is mounted on an overhead rail;

FIG. 2 is a fragmentary side elevational view of the hanger assembly parts being in cross section to reveal details of construction; and

FIG. 3 is a plan view, partially in section taken along line 3—3 of FIG. 2 and showing the plate in a raised position.

The hanger assembly forming the subject matter of this invention is broadly designated as 10 and includes a clevis 12 of conventional configuration, which clevis 12 is adapted to be suspended from an overhead rail or the like such as 14 by means of a rod 16 which closes the open end of the clevis 12. A hook broadly designated as 18 is suspended from the bight 20 of clevis 12. Hook 18 has a shank 22, a first leg 24 extending laterally from shank 22, a bight 26, a second leg 28 and an outermost free end 30, said first leg 24, bight 26, second leg 28

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and free end 30 combining to form a loop 32 having an open mouth 34.

The uppermost end of shank 22 is threaded as at 36 and receives a nut 38 whereby hook 18 may be maintained in its position relative to clevis 12. A washer 40 of resilient material surrounds a portion of shank 22 between the upper surface of bight 20 and the lowermost face of nut 38 and is intended to dampen the vibrations created by the transporting vehicle and, so far as is possible, maintain hook 18 free from vibration. A metal washer 42 is disposed between the upper surface of resilient washer 40 and the lower face of nut 38 to aid in maintaining washer 40 in the desired position and to provide a bearing surface for nut 38.

As is apparent from the foregoing the distance between the mouth 34 of hook 18 may be regulated through the rotation of nut 38 and said mouth 34 may be maintained in various spaced relationships to bight 20. In this respect it is desired that a spacing substantially as shown in FIG. 2 of the drawing be maintained whereby a hanger loop such as 44 may be passed through mouth 34 of hook 18 and disposed in the position shown in FIG. 1. The hanger loop 44 as shown in FIG. 1 is fully described in my copending application, Serial No. 8,618, and will not be further described herein except to indicate that said loop 44 is intended to be threaded through an opening provided in a piece of meat or other such article to be handled and to be then locked in the position shown in FIG. 1 whereby said hanger loop 44 may be suspended from suitable hanging, conveying or storing apparatus.

A conical plate 46 provided with a central opening 48 is received by shank 22 of hook 18 and is intended to slide therealong between a raised position as shown in FIG. 3 and a lowered position as shown in FIGS. 1 and 2. The upper surface 50 of plate 46 is conical in configuration and the lower surface 52 is concave, there being a peripheral edge 54 interconnecting said surfaces 50 and 52. A pair of fingers 56 and 58 are formed integrally with plate 46 as by stamping the same therefrom and each of said fingers 56 and 58 is provided with a first leg 60 and 62 respectively and second legs 64 and 66 respectively. As clearly shown in FIG. 2, fingers 56 and 58 are L-shaped in configuration, the first legs 60 and 62 thereof being substantially perpendicular to plate 46 and the second legs 64 and 66 being substantially parallel to the upper surface 50 of plate 46. Fingers 56 and 58 are formed on plate 46 in opposed relationship, as best seen in FIG. 1, the open portion of each of said fingers as formed by the first and second legs thereof respectively facing in opposite directions.

When plate 46 is initially moved to its raised position the legs 64 and 66 of fingers 56 and 58 are in a position substantially parallel to the bight 20 of clevis 12 and are spaced slightly thereabove. In said position finger 56 is on one side of bight 20 and finger 58 is disposed in a corresponding position on the opposite side of bight 20 so that when plate 46 is rotated counterclockwise the second legs 64 and 66 of fingers 56 and 58 respectively move into overlying relationship to the upper surface of bight 20 whereby to engage said upper surface and maintain plate 46 in its raised position.

As is apparent, plate 46 is initially placed in its raised position by lifting and rotating plate 46 as above described and when said plate is in its raised position a hanger loop such as 44 may be passed through mouth 34 of hook 18 and allowed to move into engagement with bight 26 of hook 18 whereby hanger loop 44 may be suspended from said hook 18.

When the foregoing has been accomplished plate 46 is rotated in a clockwise direction whereby legs 64 and 66 become disengaged from bight 20 and allow plate 46 to

move downwardly along shank 22 of hook 18 to the position fully shown in FIG. 2 of the drawing.

When plate 46 is moved to the above-mentioned lowered position, it will be noted that the plate 46 is canted with respect to shank 22 and that therefore a portion of the edge of central opening 48 is in engagement with shank 22 and a portion of the marginal edge of the concave lower surface of plate 46 is in engagement with a portion of the free end 30 of loop 32 adjacent the juncture of said free end 30 with second leg 28 of loop 32. Thus mouth 34 of hook 18 is effectively closed and it will be appreciated that any upward pressure upon that portion of the plate 46 disposed between the shank 22 and its point of engagement with free end 30 will not loosen said plate 46 and cause the same to move upwardly but will, rather, lock the plate 46 tighter in position by reason of the inclination of said plate 46 with respect to said shank 22 and the resulting engagement of the edge of opening 48 with shank 22.

When the plate 46 is disposed in its lowered position as above described it will be apparent that a hanger loop such as 44 or other means may be suspended from hook 18 and not become displaced from said hook 18 and that therefore the danger of such hanger loop or materials carried thereby falling to the floor is completely and totally eliminated. On the other hand if it is desirable to remove such hanger loop or the like, plate 46 may be easily and neatly moved to its raised position and maintained therein in the manner herein described whereby hanger loop 44 may be easily and quickly removed from within loop 32 of hook 18.

Having thus described the invention what is claimed as new and desired to be secured by Letters Patent is:

1. A hanger assembly comprising a clevis; a hook suspended from the bight of the clevis; a conical plate slidable on the shank of the hook to and from a position closing the mouth of the hook; and a pair of fingers formed integrally with said plate for engaging the bight of the clevis whereby to hold said plate in a position spaced from the mouth of the hook.

2. A hanger assembly as set forth in claim 1 wherein said fingers are substantially L-shaped.

3. A hanger assembly as set forth in claim 2 wherein each of said fingers has a first leg substantially perpendicular to said plate and a second leg substantially parallel to said plate.

4. A hanger assembly as set forth in claim 1 wherein said plate has a concave surface, said surface being proximal to the mouth of the hook.

5. A hanger assembly as set forth in claim 4 wherein a portion of the marginal edge of said concave surface of the plate is in engagement with a portion of the hook when the plate is moved to its position closing the mouth of the hook.

6. A hanger assembly as set forth in claim 5 wherein said plate is canted with respect to the shank of the hook when the plate is in position closing the mouth of the hook.

7. A hanger assembly comprising a clevis; a hook suspended from the bight of the clevis; a plate slidable on the shank of the hook to and from a position closing the mouth of the hook, a marginal edge of said plate being in engagement with a portion of the hook when the plate is moved to its position closing the mouth of the hook and in locking engagement with the shank; and means for retaining the plate spaced from said portion of the hook when the plate is moved to a position opening the mouth of the hook.

8. A hanger assembly comprising a clevis; a hook suspended from the bight of the clevis; a plate shiftable longitudinally on the shank of the hook to and from a position closing the mouth of the hook, a marginal edge of said plate being in engagement with a portion of the hook when the plate is moved to its position closing the mouth of the hook and in locking engagement with the shank; and means for retaining the plate spaced from said portion of the hook when the plate is moved to a position opening the mouth of the hook.

9. A hanger assembly comprising a clevis; a hook suspended from the bight of the clevis; a plate slidable on the shank of the hook to and from a position closing the mouth of the hook, the surface of the plate proximal to the mouth of the hook being concave, a marginal edge of said surface being in engagement with a portion of the hook when the plate is moved to its position closing the mouth of the hook; and means for retaining the plate spaced from said portion of the hook when the plate is moved to a position opening the mouth of the hook, said plate being circular in configuration.

10. A hanger assembly comprising a clevis; a hook suspended from the bight of the clevis; a circular plate slidable on the shank of the hook to and from a position closing the mouth of the hook, the surface of the plate proximal to the mouth of the hook being concave, a marginal edge of said surface being in engagement with a portion of the hook when the plate is moved to its position closing the mouth of the hook, said plate being canted with respect to the shank of the hook when it is in position closing the mouth of the hook; and means for retaining the plate spaced from said portion of the hook when the plate is moved to a position opening the mouth of the hook.

References Cited in the file of this patent

UNITED STATES PATENTS

1,394,068	Cousins	Oct. 18, 1921
2,037,320	Fisher	Apr. 14, 1936
2,470,878	Tate	May 24, 1949
2,833,017	Patton	May 6, 1958