Feb. 13, 1923. 1,445,277

O. H. HANSEN

CONVEYER BUCKET

Filed Feb. 13, 1922

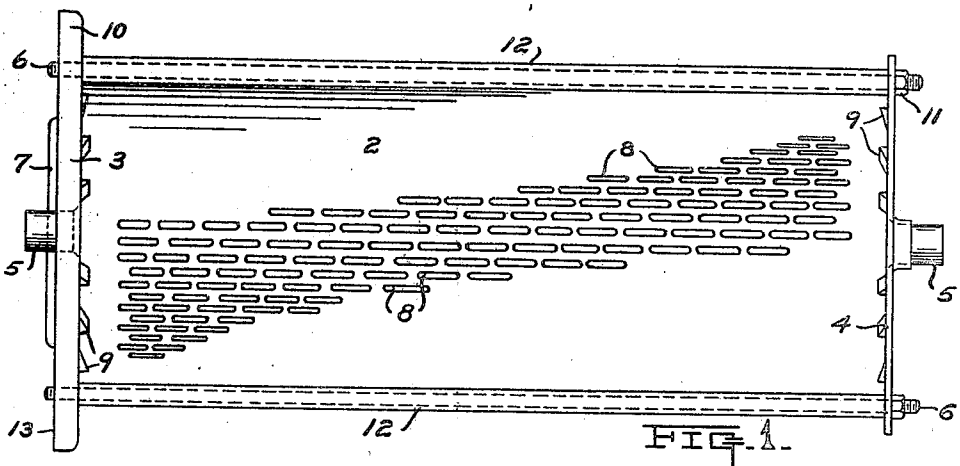


FIG. 1.

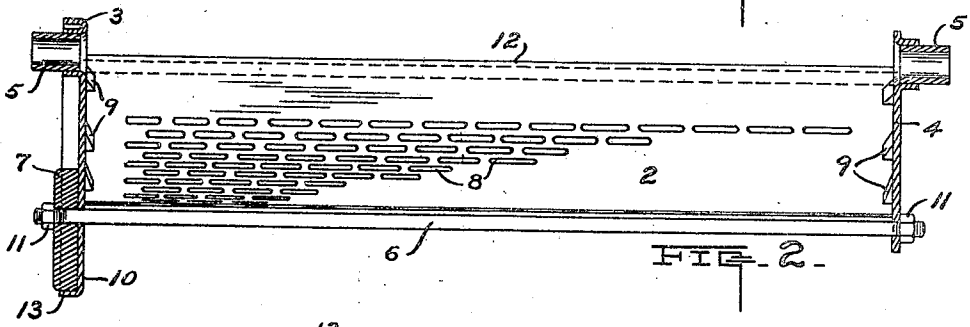


FIG. 2.

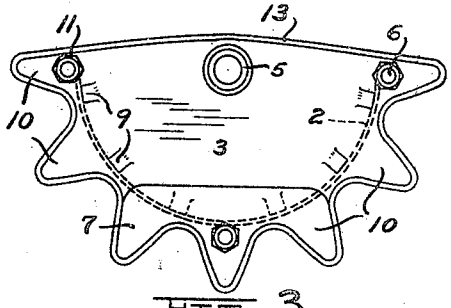


FIG. 3.

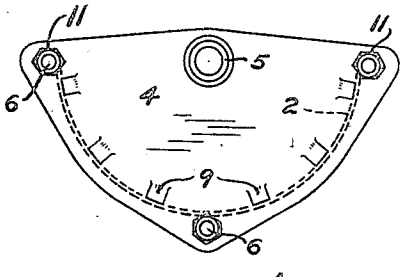


FIG. 4.

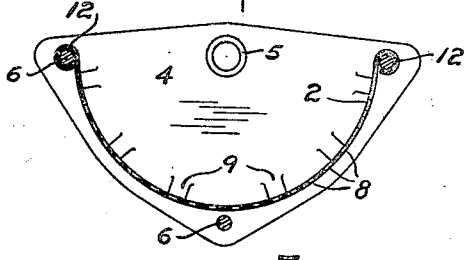


FIG. 5.

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UNITED STATES PATENT OFFICE.

OSWALD H. HANSEN, OF PORT WASHINGTON, WISCONSIN, ASSIGNOR TO HANSEN CANNING MACHINERY CORPORATION, A CORPORATION OF WISCONSIN.

CONVEYER BUCKET.

Application filed February 13, 1922. Serial No. 536,028.

To all whom it may concern:

Be it known that OSWALD H. HANSEN, a citizen of the United States, residing at Port Washington, in the county of Ozaukee and State of Wisconsin, has invented a certain new and useful Conveyer Bucket, of which the following is a specification.

This invention relates in general to improvements in apparatus for transporting materials such as vegetables, in bulk, and relates more specifically to improvements in the construction of conveyer buckets and the like.

An object of the invention is to provide a conveyer bucket which is exceedingly simple in construction and highly efficient in operation. Another object of the invention is to provide a relatively strong conveyer bucket structure which may be manufactured in quantity and at minimum cost. A further object of the invention is to provide a conveyer bucket the essential parts of which may be formed of sheet metal with the aid of dies. Still another object of the invention is to provide an improved conveyer bucket which is especially adapted to transport materials such as vegetables and fruit in canning factories. These and other objects and advantages of the present invention will be apparent from the following description.

A clear conception of an embodiment of the invention may be had by referring to the drawing accompanying and forming a part of this specification, in which like reference characters designate the same or similar parts in the various views.

Fig. 1 is a top view of the improved sheet metal conveyer bucket.

Fig. 2 is a longitudinal central vertical section through an improved sheet metal conveyer bucket.

Fig. 3 is an end view of an improved sheet metal conveyer bucket, looking toward the end head having the bucket tilting means thereon.

Fig. 4 is an end view of an improved sheet metal conveyer bucket looking toward an end head thereof.

Fig. 5 is a transverse vertical section through an improved sheet metal conveyer bucket.

The conveyer bucket illustrated in the drawing comprises in general a pair of laterally spaced sheet metal end heads 3, 4, a dished sheet metal body portion 2 located and clamped between the end heads, and a plurality of rods 6 connecting the end heads 3, 4 and rigidly uniting the body portion 2 with the end heads. The body portion 2 is constructed of a single sheet of metal which is bent into semi-cylindrical form with the aid of a die, and the upper sides 12 of which are wrapped about the upper tie rods 6. In the specific bucket illustrated, the sheet metal body portion 2 is punctured by perforations 8 which permit drainage of liquid from the material being transported by the bucket. The body portion 2 and the rods 6 may be made of any convenient length dependent upon the desired capacity of the bucket.

The end head 3 is preferably formed of a single sheet of metal which is perforated and distorted with the aid of dies to provide a semi-circular series of inwardly extending integral projections 9, and to also provide an outwardly extending continuous bounding ridge 13. The lower portion of the end head 3 is provided with a series of teeth or bucket tilting projections 10 which are bounded by the continuous ridge 13 and which are adapted to engage an abutment and to thereby tilt or tip the bucket during normal use thereof. The end head 3 is also provided with an integral outwardly extending thimble to which a bucket supporting or bearing bushing 5 may be rigidly secured as by soldering or welding.

The end head 4 of the bucket is formed of a single sheet of metal which is perforated and distorted with the aid of dies to provide a semi-circular series of inwardly extending integral projections 9. The head 4 may also be provided with an outwardly extending continuous bounding ridge 13, if additional stiffness thereof is desired. The end head 4 is provided with an integral outwardly extending thimble to which a bucket supporting or bearing bushing 5 may be rigidly secured as by soldering or welding.

The concave inner surface of bucket body portion 2 engages the ends of the projections 9 of the end heads 3, 4, the projections 9 serving to prevent inward distortion of the ends of the body portion 2, and the heads being forced against the ends of the body portion 2 by means of nuts 11 engaging the threaded ends of the tie rods 6. Weights 7 may be provided adjacent to one or both of the heads 3, 4, for the purpose of normally

holding the bucket in upright position, these weights 7 preferably being held in place by the tie rods 6. The weights 7 may be of any suitable size commensurate with the general construction of the bucket. The bearing bushings 5 of the assembled bucket are preferably located in alinement with each other thereby providing a pivotal support for the bucket. These bushings 5 may be formed by distortion of the metal of the end heads 3, 4, but are preferably formed of wear resisting material.

It will be obvious that a conveyer bucket constructed as herein illustrated and described, may be manufactured in quantity of sheet steel and at minimum cost. The bucket end heads 3, 4 and the body portion 2 may be readily constructed with the aid of dies thus eliminating necessity of performing special finishing operations thereon and making corresponding parts of the buckets interchangeable. The improved buckets may be quickly assembled and dismantled and are not readily broken by striking against each other and other objects as in the case of the prior buckets having cast metal end heads. The use of sheet metal also permits coating of the buckets by galvanizing or enameling thus preserving the buckets and enabling efficient cleaning thereof. The entire structure is durable and simple in construction and efficient in operation, being especially suitable for use in the canning industry.

It should be understood that it is not desired to limit the invention to the exact details of construction herein shown and described, for obvious modifications within the scope of the claims may occur to persons skilled in the art.

It is claimed and desired to secure by Letters Patent:—

1. A conveyer bucket comprising, laterally spaced sheet metal heads each distorted to form a projection extending toward the other head, and a sheet metal body portion having an inner surface engaging said projections.

2. A conveyer bucket comprising, laterally spaced sheet metal heads each distorted to form a projection extending toward the other head, a sheet metal body portion engaging said projections, and a plurality of rods connecting said heads and said body portion.

3. A conveyer bucket comprising, a sheet metal end head distorted to form integral teeth bounded by a continuous ridge extending transversely of said head, a second sheet metal end head spaced laterally from said first mentioned head, and a sheet metal body portion connecting said heads.

4. A conveyer bucket comprising, a sheet metal end head distorted to form integral teeth bounded by a continuous ridge extending transversely of said head, a second sheet metal end head spaced laterally from said first mentioned head, a sheet metal body portion between said heads, and a plurality of rods uniting said heads and said body.

5. A conveyer bucket comprising, laterally spaced sheet metal heads each distorted to form a projection extending toward the other head, one of said heads being further distorted to form teeth bounded by a ridge extending transversely of said head, and a body portion engaging said projections.

6. A conveyer bucket comprising, a pair of laterally spaced sheet metal heads each distorted to form projections extending toward the other head, and a body portion engaging said projections.

7. A conveyer bucket comprising, a pair of laterally spaced sheet metal heads each distorted to form projections extending toward the other head, a pair of tie rods connecting said heads, and a sheet metal body portion engaging said projections and wrapped around said rods.

8. A conveyer bucket comprising, a pair of laterally spaced sheet metal heads each distorted to form projections extending toward the other head and each having a bearing bushing formed integral therewith and extending away from the other head, and a body portion detachably connected to said heads.

9. A conveyer bucket comprising, a sheet metal end head distorted to form a laterally extending bounding ridge, a second sheet metal end head spaced laterally from said first mentioned head, said heads having integral projections extending toward each other, and a body portion engaging said projections.

10. A conveyer bucket comprising, an end head formed of sheet metal with a continuous bounding ridge extending laterally from one side thereof and a bucket body engaging projection extending from the opposite side thereof.

In testimony whereof, the signature of the inventor is affixed hereto.

OSWALD H. HANSEN.