Aug. 5, 1924. 1,503,669

L. H. SIMON

TELESCOPIC SIDE PORT LOADING CHUTE

Filed Aug. 21, 1923

FIG. 1

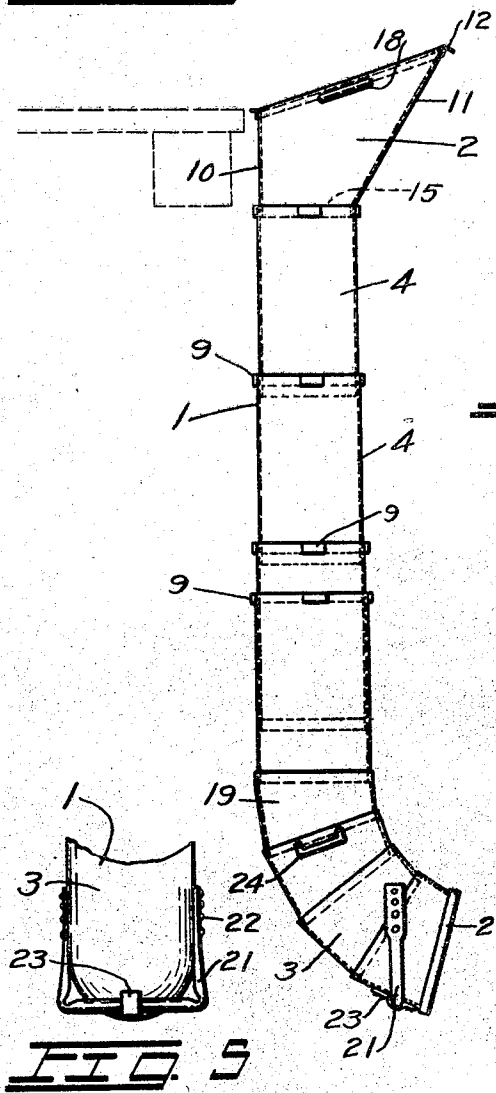


FIG. 5

FIG. 2

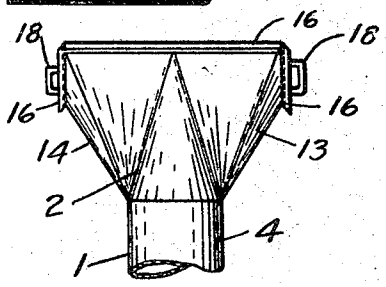


FIG. 3

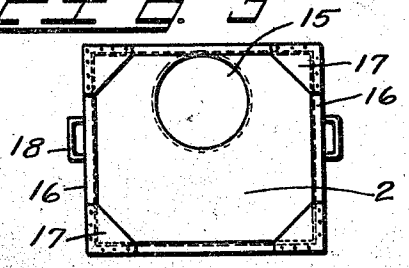
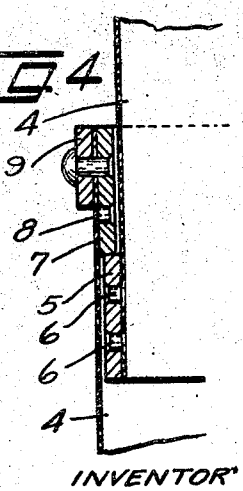


FIG. 4



INVENTOR

Louis H. Simon

Harry Bowen

ATTORNEY

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UNITED STATES PATENT OFFICE.

LOUIS H. SIMON, OF SEATTLE, WASHINGTON.

TELESCOPIC SIDE PORT LOADING CHUTE.

Application filed August 21, 1923. Serial No. 658,630.

To all whom it may concern:

Be it known that I, LOUIS H. SIMON, a citizen of the United States, residing at Seattle, county of King, and State of Washington, have invented a new and useful Telescopic Side Port Loading Chute; and I do hereby declare that the following is a full, clear, and exact specification, such as will enable others skilled in the art to which it appertains to make and use the same.

The invention is a chute for loading sacks in the port holes of a ship, which may readily be placed between the side of the ship and the dock, and which is adjustable so that the lower end may be raised and lowered to suit the tide, or for other reasons.

The object of the invention is to provide a simple device that may readily be installed at the side of a ship for loading into port holes.

Another object of the invention is to provide a telescopic chute with a hopper at the top and a curved section at the bottom.

Another object of the invention is to provide a telescopic chute with a hopper at the top and a curved section at the bottom which may be used for handling material inside of a shop or warehouse.

And a further object of the invention is to provide a telescopic chute for loading material into the port holes of a ship, which has a curved lower section that may be raised or lowered or twisted to any desired angle, or for handling material inside of a shop or warehouse.

With these ends in view the invention embodies a chute having telescoping sections constructed of sheet metal, with bands around the outside of the lower ends and around the inside of the upper ends, a hopper at the upper end, a curved section at the lower end, and means for holding the sections together and for supporting the chute.

Other features and advantages of the invention will be seen from the following description taken in connection with the drawings, wherein:

Figure 1 is a side elevation.

Figure 2 is a rear view, showing the hopper at the upper end.

Figure 3 is a plan view of the hopper.

Figure 4 is a detail showing the bands around the sections.

Figure 5 is a detail showing the bail at the lower end.

In the drawings I have shown my chute as it would be constructed, wherein numeral 1 indicates the body of the chute, numeral 2 the hopper at the upper end, and numeral 3 the elbow at the lower end.

The body of the chute is made of cylindrical or other shaped sections 4 with bands 5 attached to the outside of their lower ends by a rivet 6 and other bands 7 attached to the inside of their upper ends by rivets 8. The inside diameter of each consecutive section being larger than that of the preceding section, so that it will be free to slide over the outside of the band at the lower end of the section. The sections may have straps 9 at the outside of their upper ends by which they may be gripped, and which will also act as stops.

The hopper 2, which may be constructed as shown, may be attached to the upper end of the upper section of the chute. One side of the hopper may extend straight upward as shown at the point 10, and the opposite side 11 may slant outward and upward to a point 12 which is somewhat higher than the upper edge of the opposite side. The ends 13 and 14 may slant outward and upward, so that the upper side of the hopper will be of a rectangular shape and considerably larger than the round opening 15 in the bottom. Angle irons 16 may be placed around the edge of the hopper and these may be reenforced by gusset plates 17 at the corners, handles 18 may also be placed at the edges of the hopper so that it may readily be attached to any suitable support.

The curved or lower section 3 may be made as shown in Figure 1 with small sections 19, the lower edges of which fit into the upper edges of the following sections, and a band 20 may be placed around the edge of the last section to reenforce it. A bail 21 may be attached to the side by rivets or bolts 22, and may be bent across and upward as shown in Figure 5, so that the opposite ends may be attached to the opposite sides. A clip 23 may be placed around the bail 21 and riveted to the chute at the center, in order to reenforce the bail. Another handle 24 may be placed on the side of the chute in the position shown in Figure 1, or it may be placed at either the front or back, or similar handles may be placed at the front, back and sides, as may be desired.

It will be understood that other changes may be made in the construction without

departing from the spirit of the invention. One of which changes may be in the shape of design of the hopper, another may be in the shape of the curved section at the bottom as this may be made on any desired curve or of any desired length; another may be in the making of the chute of any other shape than round as shown; and still another change may be in the number of telescoping sections as it is understood as many of these sections may be used as may be desired so that a chute of any length may be provided.

The construction will be readily understood from the foregoing description. To use the device it may be assembled as shown and lowered from the dock until the curved section projects into the port hole into which it is desired to place the cargo. The chute may then be supported in any desired manner from either the dock or ship and it will be seen that as bags or other cargo are placed in the hopper they will slide directly downward until they reach the lower end and when they strike the curved section at the bottom they will pass through it and also through the port hole into the ship. It will be seen that as the tide raises and lowers the telescoping sections will slide upward or downward so that the distance between the hopper and the curved section at the bottom may be changed as often as may be desired. With a chute of this type it will be possible to ship it with very little trouble from one point to another as it may be folded into a very small space.

Having thus fully described the invention what I claim as new and desire to secure by Letters Patent, is:—

1. In a chute a series of telescoping sections each of said sections being larger than the preceding section; means for stopping the outward movement of the sections; other means for stopping the inward movement of the sections; a hopper at the upper end of the upper section; a curved section at the lower end of the lower section; a bail on the lower section by which it may be held; and a means projecting from the upper section by which it may be supported.

2. A chute having telescoping sections, each section having a band around the outside of the bottom, another band around the inside of the top, and lugs on the outside of the top; each of said successive sections being of a larger diameter than the preceding section; a hopper at the upper end of the smaller section; a curved section at the lower end of the larger section; a bail on the curved section; and suitable projections on the hopper and section for supporting the chute.

3. A cargo chute having telescoping sections, said sections having rings around the inside of the upper ends and rings around the outside of their lower ends and also lugs on the outside of their upper ends, a hopper at the upper end of the upper section, an elbow at the lower end of the lower section, and suitable bails and handles by which the chute may be handled.

4. A chute having a plurality of telescoping sections, said sections having rings around the inside of their upper ends, lugs on the outside of their upper ends and rings around the outside of their lower ends which will engage the inner surface of the adjoining section and also the ring around the inside of the adjoining section; the smaller of said telescoping sections being connected to a hopper, one side of which is parallel to the side of the section and the three remaining sides of which slant outward and upward, the side opposite the straight side extending upward somewhat further than the straight side and the upper edges of the two ends being cut on a slant to correspond with the upper ends of the sides, the upper edges of the sides and ends being reinforced with an angle bar, and the upper edges of the sides having handles extending outward from them by which the chute may be supported; the lower or larger of said telescoping sections having a plurality of conical shaped sections attached to it which are arranged so that they will cause the chute to turn at an angle of approximately seventy-five degrees, one of said conical shaped sections having handles projecting from the sides and another having a bar bent in the shape of a U riveted to its sides and also attached to it by a plate at the center.

5. A chute having a plurality of telescoping sections with rings around their ends to limit their movement in relation to each other and also to form bearings, said chute having a hopper attached to the upper end of the smaller telescoping section, and a section in the form of a bend of somewhat less than ninety degrees at its lower end or attached to the larger of said telescoping sections; said hopper at the upper end of the chute having reinforcing bars around its upper edges and handles at the sides and said bend section at the lower end having a handle on its under side and other handles on its sides.

LOUIS H. SIMON.