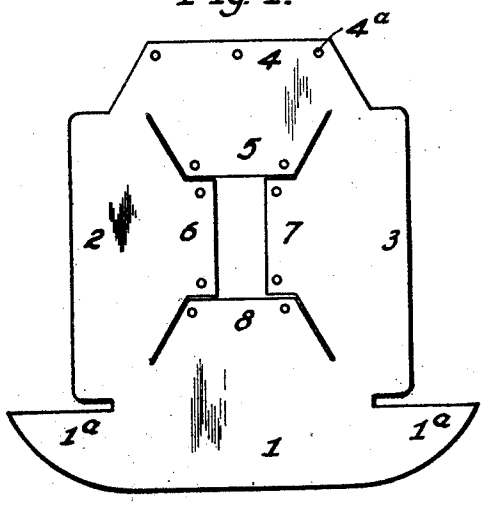
May 31, 1927. 1,630,538

R. P. MICALLEF

COMBINATION SPOUT AND GATE FOR BINS

Filed June 7, 1926

Fig. 1.



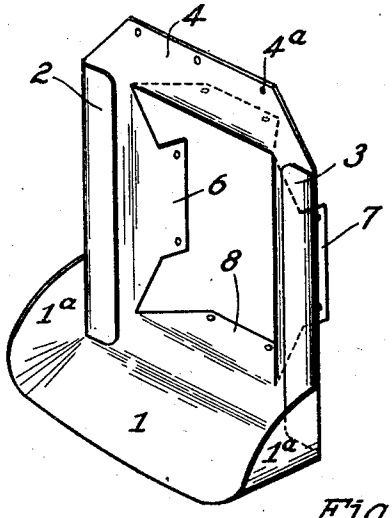


Fig. 2.

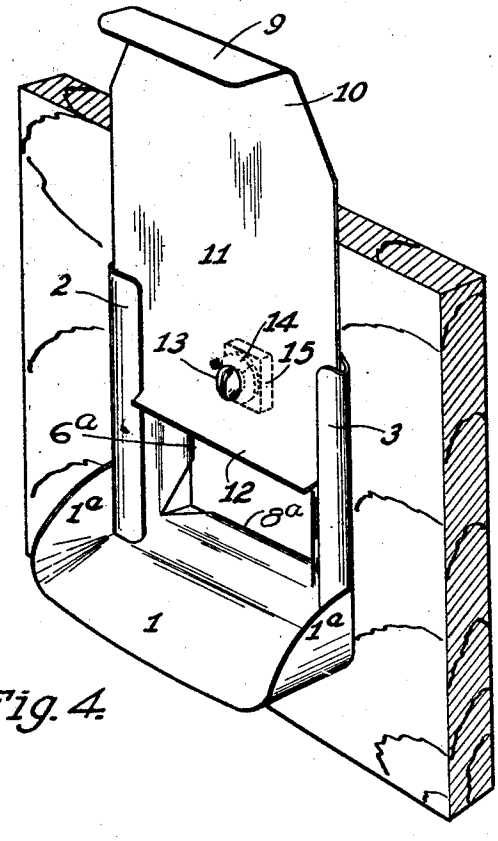


Fig. 4.

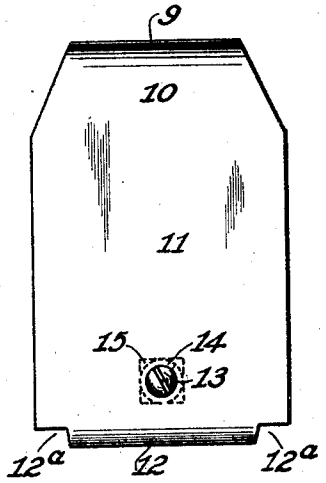


Fig. 3.

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Patented May 31, 1927. 1,630,538

UNITED STATES PATENT OFFICE.

RAMIRO PAUL MICALLEF, OF FONTANA, CALIFORNIA.

COMBINATION SPOUT AND GATE FOR BINS.

Application filed June 7, 1926. Serial No. 114,132.

My invention relates to a combination gate and spout for bins, and the objects of my invention are: first, to provide a simple combined spout and gate for bins which may be made economically of sheet metal; second, to provide a device of this class which is easy to open and close and will not readily clog; third, to provide a device of this class which is so constructed that it may be readily secured to the opening of a bin; fourth, to provide a device of this class which is very simple and easy to make; fifth, to provide a novel combination gate and spout for bins, and, sixth, to provide a device of this class which is very simple and economical of construction, durable, efficient in its action, easy to operate and which will not readily deteriorate or get out of order.

With these and other objects in view, as will appear hereinafter, my invention consists of certain novel features of construction, combination and arrangement of parts and portions as will be hereinafter described in detail and particularly set forth in the appended claims, reference being had to the accompanying drawings and to the characters of reference thereon which form a part of this application, in which:

Figure 1 is a side diagrammatic view of the main supporting portions of my device after it is cut and before being bent into shape; Fig. 2 is a perspective view of the same after it is bent into shape ready to be positioned in the opening of a bin; Fig. 3 is a front side view of the gate portion of my device alone, and Fig. 4 is a perspective view of the device complete with the gate open and shown positioned on a fragmentary portion of a bin.

Similar characters of reference refer to similar parts and portions throughout the several views of the drawings.

The spout and supporting member is made of sheet metal and consists of spout portion 1, guide portions 2 and 3, supporting portions 4, 5, 6, 7 and 8, and the gate consisting of hand portion 9, tapered portion 10, main body portion 11, outwardly curved portion 12, stove bolt 13, washer 14, and nut 15 constitute the principal parts and portions of my combination gate and spout for bins.

The spout and supporting member is made substantially in the shape as shown best in Fig. 1 of the drawings, out of thin sheet metal. The portion 1 which forms the spout is bent at the ends 1^a into the shape as shown best in Figs. 2 and 4 of the drawings, up against the portions 2 and 3 after the portions 2 and 3 are folded over forming grooves for the gate member. The portion 4 is provided with a plurality of holes 4^a adapted for nails or screws for securing the same on the bin above the outlet opening. The portions 5, 6, 7 and 8 are each provided with holes adapted for nails or screws adapted to be fastened into the back side of the bin portions surrounding the outlet opening for the bin so that these members are bent backwardly, as shown best in Fig. 2, and then inserted in the bin opening. Then the edges are bent backwardly against the back, as shown at 6^a and 8^a in Fig. 4, then secured by nails, screws or soldered, thus securely locking the same to the back. Also it will be noted that the members 2 and 3 when bent over as shown in Figs. 2 and 4 of the drawings, provide a groove in which the gate slides and the member 1 with the ends 1^a bent up against the bent portions 2 and 3, the edges being soldered against the members 2 and 3 form the spout for conducting the contents of the bin through the gate opening. The main portion of the gate 11 is of the proper width to slide easily up and down in the groove formed by the bent portions 2 and 3. This gate is provided on its upper edge with a turned portion 9 which forms the handle for facilitating the shifting of the gate, it being noted that this upper portion is tapered from the main portion 11. The lower end is cut away at 12^a so that the portion 12 may be curved outwardly. This outwardly curved portion 12 has a tendency to crowd the grain in the bin and thus prevent the gate from choking. The gate is provided near its lower side with a stove bolt 13 and on the back side a washer and nut which forms a stop for the upward movement of the gate so that it will not come out of the guides formed by the members 2 and 3.

Though I have shown and described a particular construction, combination and arrangement of parts and portions, I do not wish to be limited to this particular construction, combination and arrangement but desire to include in the scope of my invention the construction, combination and arrangement substantially as set forth in the appended claims.

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

1. In a combination spout and gate for bins, a vertical, sheet metallic gate support formed from a single sheet with grooves on its opposite sides and a spout portion at its lower side, and a sheet metallic gate slidably mounted in the grooves.

2. In a combination spout and gate for bins, a sheet metallic member provided with side and upper and lower backwardly extending supporting portions adapted to be secured to the sides of the outlet opening in the bin and their sides turned forwardly forming grooves along the sides, the lower end turned upwardly forming a spout, and a gate slidably mounted in said grooves.

3. In a combination spout and gate for bins, a sheet metallic member provided with side and upper and lower backwardly extending supporting portions adapted to be secured to the back sides of the outlet opening in the bin and their sides turned forwardly forming grooves along the sides, and the lower end turned upwardly forming a spout, a sheet metal gate slidably mounted in said grooves, said gate provided with a handle member formed integrally therewith and extending outwardly and the lower side of said gate provided with an outwardly curved portion, and stop means mounted on the lower side of said gate and extending from both sides thereof.

In testimony whereof, I have hereunto set my hand at Fontana, California, this 24th day of May 1926.

RAMIRO PAUL MICALLEF.