J. W. BRADLEY.

MOLDER'S GAGGER.

APPLICATION FILED SEPT. 25, 1920.

1,368,689. **Patented Feb. 15, 1921.**

Fig. 1.

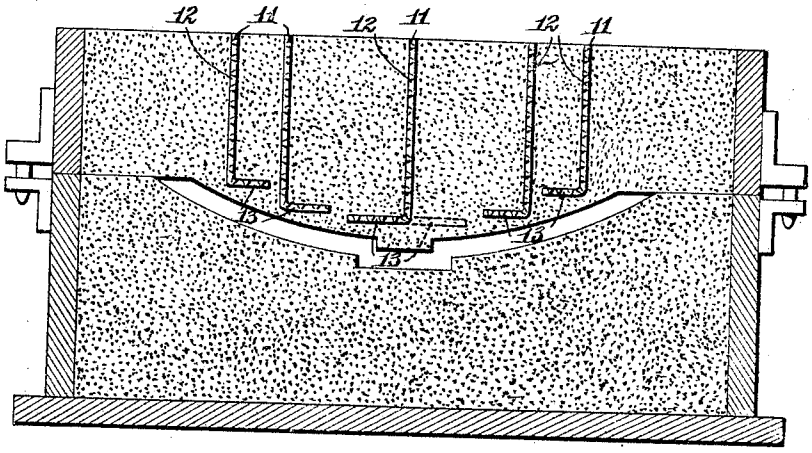


Fig. 2.

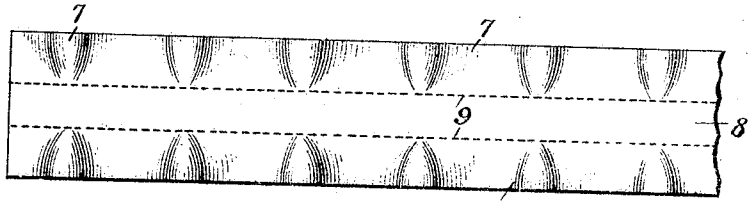


Fig. 3.

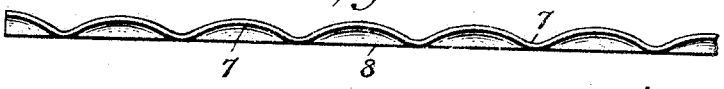


Fig. 5.

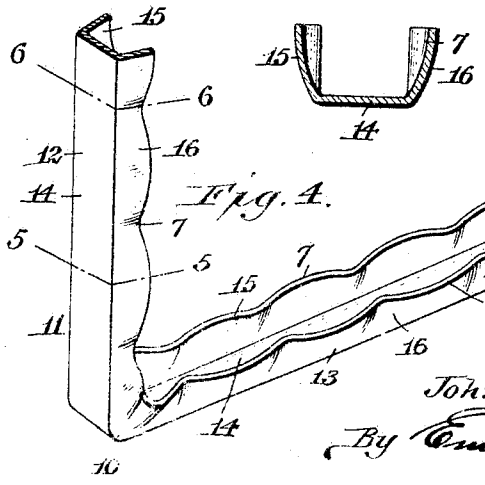
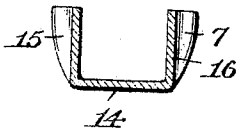


Fig. 4.

Fig. 6.



John W. Bradley, Inventor

By Emil Kuhark

Attorney.

UNITED STATES PATENT OFFICE.

JOHN W. BRADLEY, OF BUFFALO, NEW YORK.

MOLDER'S GAGGER.

1,368,689. Specification of Letters Patent. Patented Feb. 15, 1921.

Application filed September 25, 1920. Serial No. 412,839.

To all whom it may concern:

Be it known that I, JOHN W. BRADLEY, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Molders' Gaggers, of which the following is a specification.

My invention relates to improvements in molders' gaggers, so termed in the trade, but which may be referred to as retaining means for molding flasks to retain the sand in the cope part of a flask, especially when there is a depending portion on that portion of the mold within the cope of the flask.

The primary object of my invention is the provision of a molder's gagger which is simple in construction, extremely cheap to manufacture, and which will have the required strength to retain the sand and prevent "drop-outs" from the upper mold portion.

A further object of my invention is to construct a gagger of sheet metal of comparatively light gage and provide the same with a corrugated surface or surfaces forming depressed portions into which portions of the molding sand is packed so as to avoid sliding movement of the sand along the gagger.

A further object of my invention is the production of a molder's gagger which can be constructed of strips of sheet metal bent or otherwise fashioned into the desired cross sectional formation and severed into any desired length, and after so bending or fashioning the same can be further bent upon itself to provide two arms arranged at an angle to each other.

With these and other objects in view, the invention consists in a gagger formed of sheet metal having sand-retaining means.

It further consists of a gagger formed of sheet metal having a surface or surfaces thereof roughened to more effectively retain the sand and prevent drop-outs from the mold, and it further consists in the novel features of construction, and in the arrangement of parts to be hereinafter described and more particularly pointed out in the subjoined claims.

In the drawings:—

Figure 1 is a longitudinal section through a molding flask showing my improved gaggers in the cope portion of the flask, which portion has a depending part centrally thereof retained by my improved gaggers.

Fig. 2 is a plan view of a strip of metal showing opposite marginal portions corrugated preparatory to bending the same along lines parallel to the edges thereof.

Fig. 3 is an edge view of the corrugated strip.

Fig. 4 is a sectional perspective view of a gagger constructed according to this invention.

Fig. 5 is an enlarged cross section taken on line 5—5, Fig. 4.

Fig. 6 is an enlarged cross section taken on line 6—6, Fig. 4.

A gagger constructed in accordance with this invention is formed of a strip of sheet metal of comparatively thin gage formed into a shape which will be as durable as the solid iron gaggers now in use and at the same time give assurance of gripping the sand so that the latter will be maintained in the form into which it is molded.

In forming this improved gagger, a strip of comparatively thin yet stiff metal is utilized, and along opposite marginal portions it is roughened, preferably by corrugating the same, as at 7, a flat longitudinal intermediate portion 8 being left. Between this flat longitudinal portion and the corrugated opposite side portions, dotted lines 9 are shown in Fig. 2, along which the strip of metal is bent to form substantially a channel bar having opposite corrugated walls. This channel bar is bent upon itself, as at 10, thus completing the gagger designated by the numeral 11.

The gagger has a leg or vertical portion 12 and a heel or a horizontal portion 13 at one end of said leg portion. It is, however, to be understood that a similar heel or horizontal portion may be provided at the other end of said leg, as gaggers are commonly employed in both such forms.

As clearly shown in Fig. 1, gaggers are used in the cope portions of molders' flasks when the sand within the cope portion has a part extending beneath the lower edge of the cope, the leg portion 12 being arranged vertically within the cope while the heel portion is at an angle or arranged horizontally. In a broader sense the gagger

may be said to comprise two integral members or arms arranged at an angle to each other. When these arms are arranged at right-angles, the heel or horizontal portion is embedded in that portion of the sand mold which extends beneath the edge of the cope. By reason of the gagger being of channel shape in cross section, it is provided with three sides 14, 15, 16, one of which is preferably flat and the remaining two roughened, as by means of the corrugations 7 hereinbefore referred to. By means of these corrugations, opposite sides of the gagger are provided with undulations, and when these sides are embedded in the sand of the mold the unevenness thereof assures a firm grip on the tamped sand so that there will be no possibility of the sand sliding along the gagger and dropping out of the cope.

While the gagger is shown in the drawing as having portions corrugated to form undulations, the sole purpose of so forming the same is to cause a greater gripping action on the sand, and for this reason any deviation from a straight or flat surfaced side at one or more of the faces of the gagger is to be considered fully within the scope of this invention, whether the same is formed by corrugations or otherwise.

Gaggers constructed according to this invention are much lighter than the ordinary solid gagger commonly used, and in addition to being inexpensive can be transported at a fraction of the cost of solid gaggers.

Where in the claims the words "irregular surfaced" or "uneven" are used, it is intended to mean any departure from a flat surface, formed by rolling or bending portions of a flat strip, or a portion of a sheet metal gagger, to change the same from a flat surface to an irregularly-faced surface.

Having thus described my invention, what I claim is:—

1. A gagger formed of a strip of sheet metal bent along lines at opposite sides of its medial center to form a bar and having the bar so shaped bent or otherwise formed to provide a leg portion and a heel portion at an angle to said leg portion.

2. A sheet metal gagger of channel shape in cross section and having two arms arranged at angles to each other.

3. A sheet metal gagger formed of a sheet of metal bent lengthwise to form a plurality of sides and being bent upon itself to form two arms arranged at an angle to each other.

4. A sheet metal gagger having a plurality of sides or faces and having at least one of said faces irregularly-surfaced.

5. A sheet metal gagger having a plurality of sides and having at least one of said sides uneven.

6. A gagger formed from a strip of metal bent longitudinally to provide a plurality of sides and bent transversely to provide a plurality of arms or parts.

7. A gagger formed of sheet metal comprising a plurality of arms and having one of the sides of each arm corrugated.

8. A gagger formed of sheet metal having a plurality of arms of channel shape in cross section and having opposite walls of the channel shaped arms fashioned to provide uneven outer surfaces.

In testimony whereof I affix my signature.

JOHN W. BRADLEY.