(No Model.)

C. TRUESDALE.

MOLDER'S RIDDLE.

No. 373,382. Patented Nov. 15, 1887.

FIG. 1.

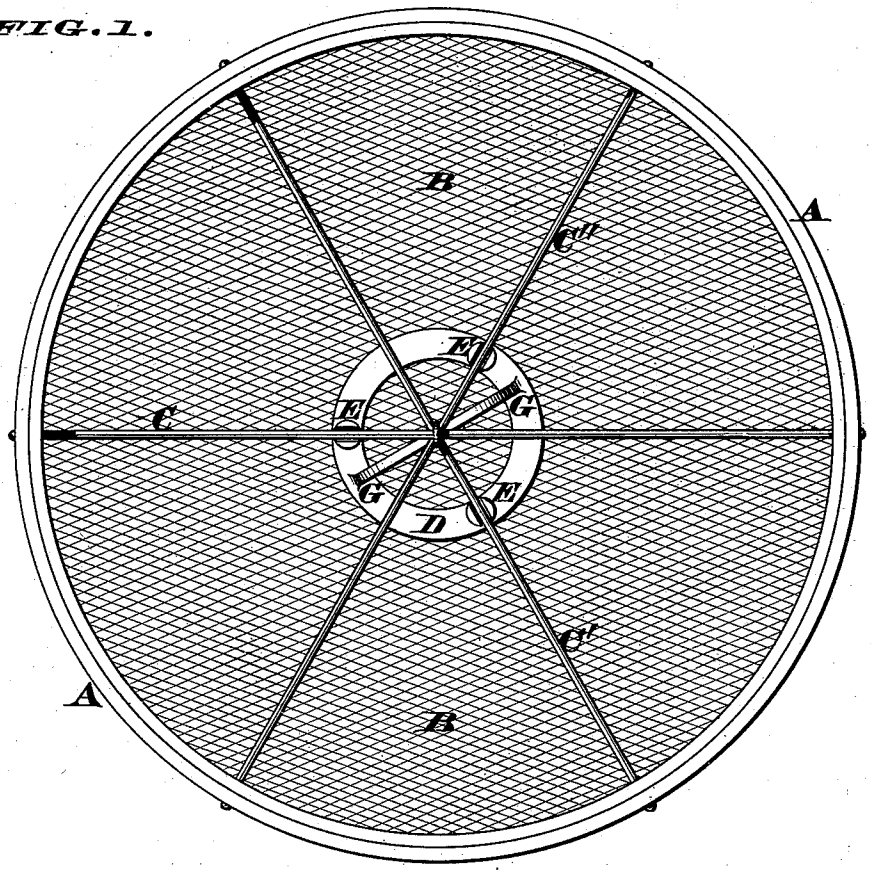


FIG. 2.

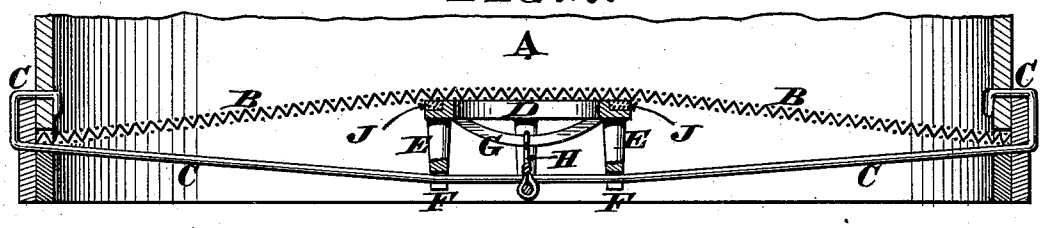


FIG. 4.

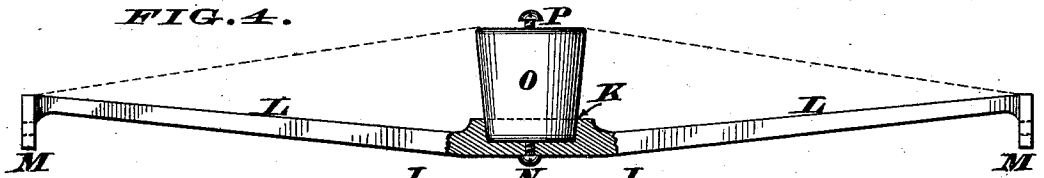
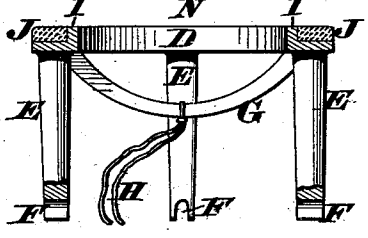


FIG. 3



Attest.
S. S. Carpenter.
L. L. Carpenter

Inventor.
Charles Truesdale
by James N. Layman
Atty.

N. PETERS. Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

CHARLES TRUESDALE, OF CINCINNATI, OHIO.

MOLDER'S RIDDLE.

SPECIFICATION forming part of Letters Patent No. 373,382, dated November 15, 1887.

Application filed February 14, 1887. Serial No. 227,501. (No model.)

To all whom it may concern:

Be it known that I, CHARLES TRUESDALE, a citizen of the United States, residing at Cincinnati, in the county of Hamilton, State of Ohio, have invented certain new and useful Improvements in Molders' Riddles, of which the following is a specification, reference being had therein to the accompanying drawings.

The object of my invention is to improve those sieves or riddles which are used by molders for sifting sand over patterns in the flasks, and for other similar foundry purposes. These riddles as usually constructed consist of a meshed bottom made of brass wire-cloth stretched across a short cylinder or hoop and supported upon a series of radial wires whose ends are attached to said hoop; but as molder's sand is quite heavy the meshed bottom is soon cut through where it rests upon the supporting-wires, and the sieve is then thrown aside as useless. To overcome this difficulty without adding very materially to the cost of manufacture I employ the meshed bottom and wire supports beneath the same, but prevent any bearing of the bottom upon said supports by applying a prop at the center of the riddle. This prop preferably consists of a small annulus or ring having one or more pendent feet that rest upon the wire supports, while the upper surface of said annulus bears against the under side of the meshed bottom, and thus elevates the central portion of the latter.

Furthermore, it is preferred to interpose a flexible or yielding pad, cushion, or washer between this meshed bottom and the upper end of the prop, as hereinafter more fully described.

In the annexed drawings, Figure 1 is a plan of the under side of my improved molder's riddle. Fig. 2 is an enlarged vertical section of the same, taken in the plane of the wire support C. Fig. 3 is an enlarged axial section of the prop detached from the riddle. Fig. 4 is a modification of my invention.

A represents the cylindrical body or hoop of an ordinary sieve or riddle, and B is the wire-cloth or meshed bottom of the same.

C, C′, and C″ are the customary radial wire supports, whose opposite ends are fastened to the hoop in the usual manner. Interposed between these supports C C′ C″ and the meshed bottom B is the prop D, which generally consists of a light cast ring about two and a half inches in diameter, and having one or more feet, E, that rest upon said supports. These feet depend from the ring D, and are usually about an inch and a half long, the lower ends of said feet being notched at F to straddle the wires C C′ C″. Furthermore, this ring has a bridge-piece, G, to which a tie, H, is attached, said tie being also fastened at the junction of the crossed wires C C′ C″, so as to hold the prop in a central position with reference to the hoop A.

It is preferred to furnish the inner periphery of the ring D with an upwardly-projecting annular flange, I, that retains the pad, cushion, or washer J in place. This pad or washer may be composed of leather, cork, or india-rubber, or any other soft or yielding material or materials that will not cut or otherwise injure the meshed bottom. I prefer, however, to use india-rubber, because it can be readily cast to the exact size and shape, and thereby avoid any subsequent cutting or punching operations.

To apply my improvements to a riddle or sieve it is necessary only to insert the prop D E between the wires C C′ C″ and meshed bottom B, care being taken to engage the notches F of feet E with the aforesaid wires. The tie H is then attached both to the bridge-piece G and the junction of the crossed wires C C′ C″, thereby centralizing the prop within the hoop and rendering the sieve ready for immediate use. Reference to Fig. 2 shows that the meshed bottom B is elevated in the center and is nowhere in contact with the wires C C′ C″. Consequently said wires cannot cut through the bottom and destroy the riddle. Reference to this illustration shows, also, that the sand has an opportunity to sift through the portion of the sieve which spans the central opening of ring D, and therefore the only part of the riddle not utilized is the very limited section resting upon said ring or upon the interposed washer J. This washer prevents any possible cutting of the wire-cloth or other meshed bottom B, in case a metallic prop is used, while the downward slope of said bottom from the center of the riddle to the hoop A causes a thorough dispersion and scattering of the sand, and as a natural result the

sand sifts through the sieve in a more free and uniform manner than it could do if the wire-cloth B were perfectly flat.

The invention may be modified, as seen in Fig. 4, where a central socket, K, has a number of arms, L, radiating therefrom, the outer ends of said arms having flanges M, for attachment to the interior of the hoop.

N is a screw that retains a wooden bung, O, within the socket, and P is another screw wherewith the meshed bottom is attached to the top of said bung, which latter needs no pad or washer on its upper end.

I claim as my invention—

1. The combination, in a molder's riddle, of a hoop provided with a meshed bottom, a series of supports, and a prop which rests upon said supports and elevates said bottom in the center, thereby causing it to slope down on all sides toward said hoop, which latter affords a hold for the hand when the riddle is operated, substantially as herein described.

2. The combination, in a molder's riddle, of a hoop provided with a meshed bottom, a series of supports, and a cushioned prop which rests upon said supports and elevates said bottom in the center, thereby causing it to slope down on all sides toward said hoop, which latter affords a hold for the hand when the riddle is operated, substantially as herein described.

3. The combination, in a molder's riddle, of hoop A, meshed bottom B, wires C C′ C″, ring prop D E F, and cushion J, for the purpose described.

4. The combination, in a molder's riddle, of a hoop provided with a meshed bottom, a series of supports, and a prop having notched feet, whereby said bottom is elevated in the center and caused to slope down on all sides toward said hoop, substantially as herein described.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES TRUESDALE.

Witnesses:
JAMES H. LAYMAN,
SAML. S. CARPENTER.