

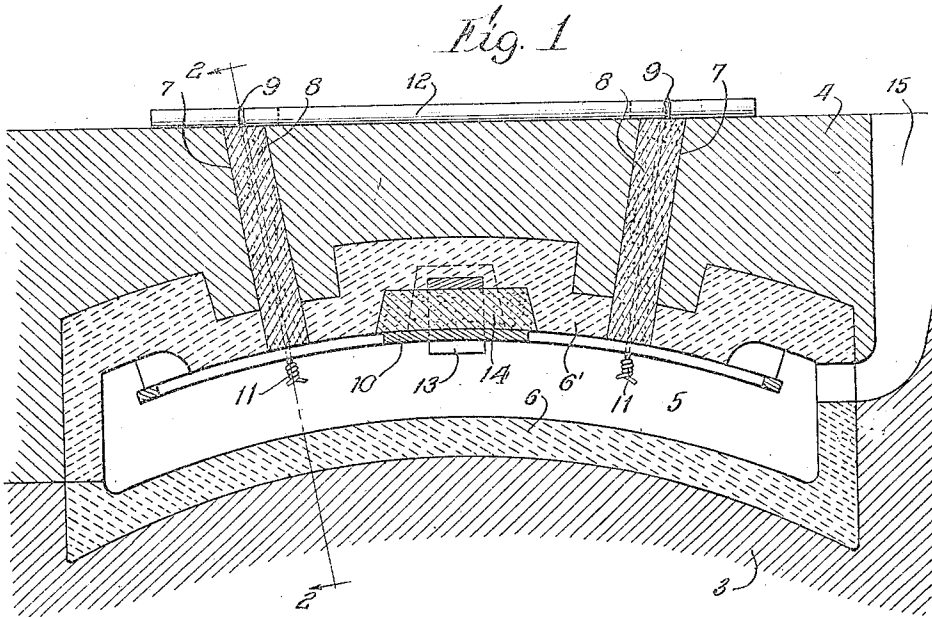
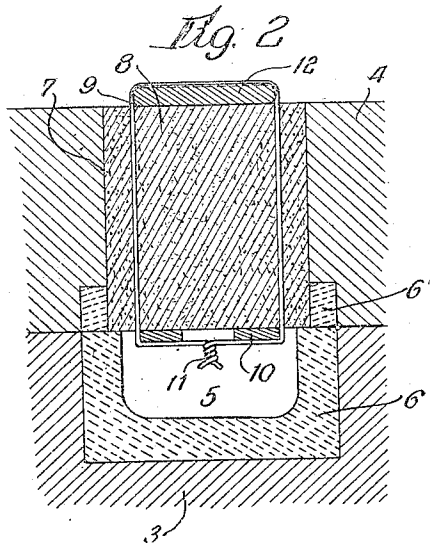
Feb. 19, 1924.

1,484,429

J. S. THOMPSON

BRAKE SHOE MOLD

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Inventor:
James S. Thompson
By: Wm. O. Bell, atty.

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JAMES S. THOMPSON, OF PELHAM, NEW YORK.

BRAKE-SHOE MOLD.

Application filed July 23, 1923. Serial No. 652,777.

To all whom it may concern:

Be it known that I, JAMES S. THOMPSON, a citizen of the United States, residing at Pelham, in the county of Westchester and State of New York, have invented certain new and useful Improvements in Brake-Shoe Molds, of which the following is a specification.

This invention relates to the manufacture of brake shoes and particularly to the mold, its object being broadly to provide a permanent mold wherein a brake shoe may be cast as easily and as well as it can be cast in a sand mold and at much less cost of time and labor.

A further object of the invention is to provide simple and novel means for suspending the reinforcing back in the mold cavity preparatory to closing the mold and during the casting operation.

In the accompanying drawings I have illustrated a selected embodiment of the invention and referring thereto,

Fig. 1 is a longitudinally sectional view showing as much of a metal mold as is necessary to understand my invention.

Fig. 2 is a transverse sectional view on line 2--2 of Fig. 1.

Referring to the drawings, 3 represents the metal drag and 4 the metal cope of a mold having a cavity 5 for making a brake shoe. The invention can be adapted to unchilled or chilled brake shoes and in the accompanying drawings, to illustrate the invention but not to restrict the same, I have shown the mold cavity walls formed by sections 6 and 6' of refractory material which will prevent the metal of the drag and cope from having a chilling effect upon the shoe casting.

In the drawings, each of the sections is shown extending throughout the length and width of the mold cavity as a desirable construction, but the sections may be made otherwise whenever required.

To facilitate the preparation of the mold for the casting operation it is desirable to provide simple means for securing in the mold cavity the reinforcing back to be embedded in the shoe casting, and for this purpose I provide spaced openings 7 preferably located on opposite sides of the transverse center of the mold cavity extending entirely through the cope. The openings 7 are comparatively narrow and are preferably of an equal or greater width than the

width of the mold cavity. Porous cores 8 are prepared to fit in the openings 7 and wires 9 are embedded in these cores and project beyond the lower ends thereof to enter the mold cavity and engage the reinforcing back 10. The ends of the wires are twisted together at 11 or otherwise engaged with the back 10 to hold the back snugly against the top wall of the mold cavity. I find it convenient to make the wires in loop form and provide a cross bar 12 on the cope to engage the loops to prevent the wires from being dislodged when the ends are thus twisted together. The attaching lug 13 and the core 14 for forming the opening therein are supported on the reinforcing back, so that the wires by engaging the reinforcing back suspend this back and the lug and the core for forming the opening in the lug in proper position in the mold for the casting operation. The porous cores permit the escape of gases from the mold cavity. The openings 7 may be variously disposed as required for different types and sizes of shoes and instead of making all the walls of the mold cavity refractory, to produce an unchilled shoe, I may leave portions of the metal walls of the mold cavity bare to chill the casting, as desired. The pouring gate 15 is preferably located at one end of the mold cavity, but it may be otherwise located if found desirable. While my invention is particularly adapted for a mold having a metal drag and a metal cope, it may be used with molds of other kinds with satisfactory results.

My invention can be employed for making castings other than brake shoes, and I consider myself entitled to make all such changes in the form, construction and arrangement of parts as may be necessary or desirable for this purpose, and for making different kinds, shapes and sizes of brake shoes, which fairly fall within the scope of the following claims.

I claim—

1. A permanent mold for making castings, comprising a drag and a cope having a mold cavity therein, said cope having spaced openings therethrough communicating with said cavity, porous cores in said openings, and wires embedded in said cores for suspending a member within the mold cavity to be embedded in the casting.

2. A permanent mold for making castings,

comprising a drag and a cope having a mold cavity therein, said cope having spaced openings communicating with said cavity, porous cores in said openings, and means embedded 5 in said cores and projecting into said cavity for suspending a member in the mold cavity to be embedded in the casting.

3. A permanent mold for making castings, comprising a drag and a cope having a mold 10 cavity therein, said cope having an opening extending therethrough and communicating with the mold cavity and elongated in cross section.

4. A permanent mold for making castings, 15 comprising a drag and a cope having a mold cavity therein, said cope having spaced openings extending therethrough and transversely across the mold cavity and communicating therewith, and means arranged in said 20 openings for suspending a reinforcing member within the mold cavity.

5. A permanent mold for making castings, comprising a drag and a cope having a mold 25 cavity therein, said cope having spaced narrow openings extending therethrough and communicating with said cavity, porous cores in said openings, and means embedded in said cores for suspending a member with- in the mold cavity.

30 6. A permanent mold for making castings,

comprising a drag and a cope having a mold cavity therein, said cope having a pair of spaced narrow openings extending trans- 35 versely therethrough and communicating with the mold cavity, porous cores in said openings, wires embedded in said cores for suspending a member within the mold cavity, and means to prevent dislodgement of the wires.

7. A permanent mold for making castings, 40 comprising a drag and a cope having a mold cavity therein, said cope having spaced narrow transverse openings extending there- through and communicating with the mold 45 cavity, porous cores in said openings, looped wires embedded in said cores and having their ends engaged with a member to sus- pend said member in the mold cavity, and a support on the cope and engaged with said 50 wires.

8. A permanent mold for making castings, comprising a drag and a cope having a mold 55 cavity provided with refractory walls, said cope having spaced openings therethrough communicating with said cavity, and means arranged in said openings for suspending a member within the mold cavity to be em- bedded in the casting.

JAMES S. THOMPSON.