J. M. HUDSON.

MOLDER'S BENCH.

APPLICATION FILED AUG. 17, 1907.

1,020,098. Patented Mar. 12, 1912.

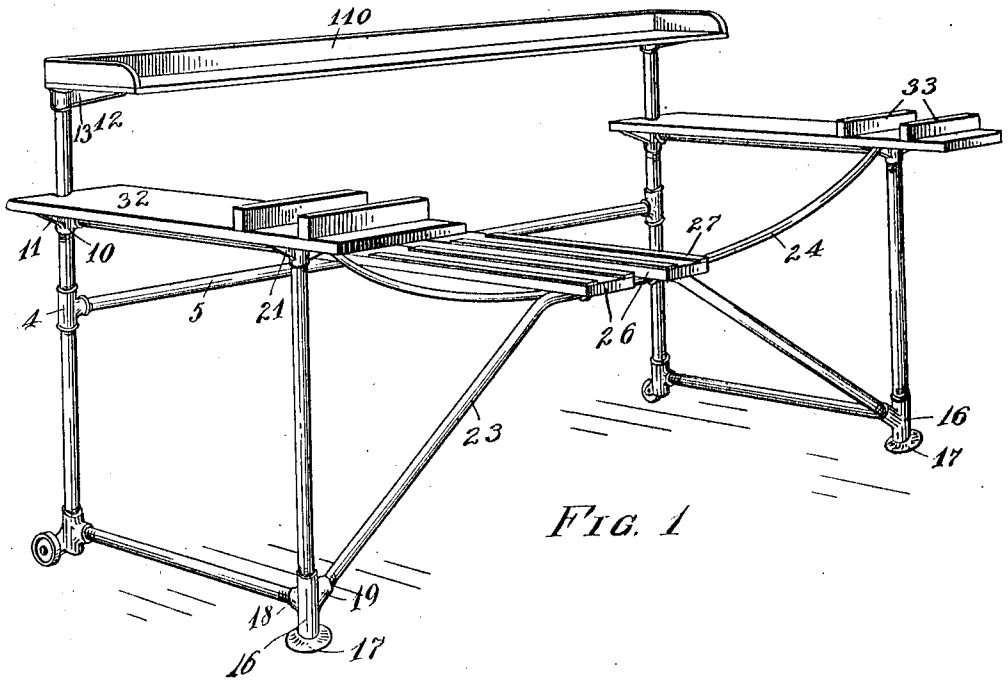

FIG. 1

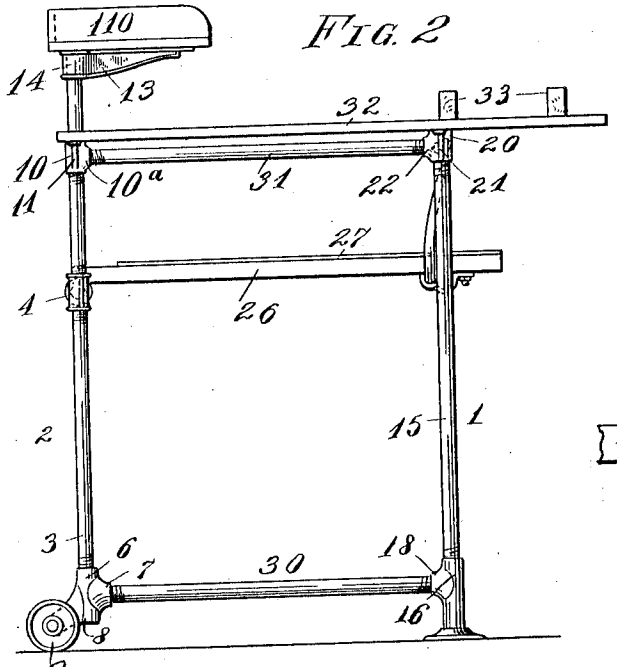

FIG. 2

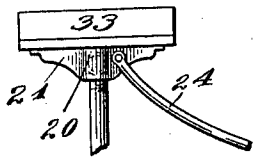

FIG. 3

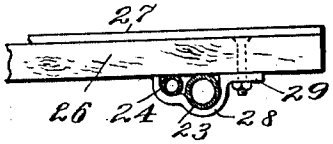

FIG. 4

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MOLDER'S BENCH.

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To all whom it may concern:

Be it known that I, JERRY M. HUDSON, residing at Piqua, in the county of Miami and State of Ohio, have invented a certain new and useful Improvement in Molders' Benches, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings.

This invention relates to molders' benches, and has for its object to provide a bench of this type the framework of which may be composed largely of light and cheap commercial metal and which shall be simple, cheap of production, easy of adjustment, which will permit the convenient handling of the flask during the operations of filling and ramming the same, and which shall combine lightness with strength and rigidity of construction.

Generally speaking, the invention may be defined as consisting of the combinations of elements embodied in the claims hereto annexed and illustrated in the drawings forming part hereof, wherein—

Figure 1 represents a perspective view of a bench constructed in accordance with my invention; Fig. 2 represents an end elevation of the bench shown in Fig. 1; Fig. 3 represents a detail in front elevation of one of the shelves and brackets on which the flask members are to be supported; and Fig. 4 represents an enlarged detail illustrating the manner in which the front braces are secured to the bench proper.

The complete bench comprises a frame whereon there is supported a shelf or table for the molders' tools, with a shelf or table at each side thereof for supporting the flasks, and with a central bench proper, said bench and the side shelves or tables extending from front to back of the frame.

The frame comprises a front member 1 and a back member 2, with braces connecting the same and forming a light but rigid structure.

The rear member of the frame is preferably and conveniently formed of two upright members or legs 3, each having between the top and bottom thereof, a tee 4 thereon. These upright members or legs may be made of gas pipe of suitable diameter, and said members are connected together and braced by means of a similar pipe 5 threaded into the tees 4 and forming a tie for said legs or members. The lower ends of legs 4 are threaded into castings 6, each of said castings being provided with a forwardly projecting threaded nipple 7 and with a rearwardly projecting bracket 8, which carries a wheel 9. The rear legs 3 are preferably made of several sections of gas pipe, the lowermost section being threaded into casting 6 and tee 4. A second section of said legs is threaded at its lower end into the tee 4 and at its upper end into a casting 10, said casting being provided with a forwardly projecting nipple 10^a and brackets 11 extending transversely of the bench. A third section of pipe, which completes the length of the rear leg, is threaded at its lower end into the upper end of casting 10.

11 denotes a shelf or table which carries the molders' tools and extends transversely of the table from side to side thereof, said shelf or table being supported by means of a casting 12, at each end thereof, provided with a forwardly projecting bracket 13 for supporting the shelf and with a downwardly projecting sleeve or hub 14 which is adapted to fit over the top of the uppermost pipe section.

The front frame of the table comprises a pair of legs 15. Each of these legs may consist of a single piece of gas pipe threaded at opposite ends thereof, the lower end being threaded into a casting 16 which is provided with a base or foot 17, with a rearwardly projecting interiorly threaded nipple 18, and with an upwardly inclined interiorly threaded nipple 19. At its upper end each leg 15 is threaded into a casting 20, provided with transverse brackets 21 for supporting the front end of one of the tables or shelves which support the flasks. Casting 20 is also provided with a rearwardly projecting, interiorly threaded nipple 22.

In order to brace the legs of the front frame member as well as form a front support for the molder's bench proper, I provide the following construction: 23 denotes a length of gas pipe which is of the general form of an inverted V having the apex thereof flattened. The opposite lower ends

of said pipe are threaded into the nipples 19, and the flattened upper surface thereof is adapted to receive and form a horizontally extending support for the front ends of the bench members, which will be described hereinafter. 24 denotes a brace preferably of gas pipe, the opposite ends of which are connected to the front of brackets 21. The brace 24 is bent rearwardly to bring the central portion of the same to the rear brace 23, and brace 24 is also bent downwardly to form a central horizontal portion which extends alongside the upper central portion of brace 23.

The bench proper comprises a pair of members 26, each consisting preferably of planking extending from front to rear of the frame and having at opposite edges of its upper surface metallic strips 27 adapted to prevent wear of the members 26. Each of the members 26 is provided with a clip 28, which is provided with a forwardly extending flange 29, by which it is bolted to its appropriate bench member, the body of the clip being shaped to form pockets or recesses for the reception of braces 23 and 24, the rear end of said clip extending upwardly into substantial contact with the lower surface of its bench member.

The front and rear members of the frame, constructed as above described, are conveniently and quickly connected and assembled by means of a pair of ties 30 and 31, at each end thereof. These ties are preferably of gas pipe having opposite ends thereof reversely threaded, the ends of the lower pipe 30 being threaded into the reversely threaded nipples 7 and 18 and the ends of the upper pipe 31 being threaded into the reversely threaded nipples 10^a and 22 projecting from castings 10 and 20 respectively.

At each end of the bench and below the shelf or table 11, there is provided a shelf or table 32, preferably of wood, having its rear end recessed to receive the upper portion of the leg 2 and resting on the brackets 11 and 21 to which it is suitably secured. Each shelf or table projects forwardly beyond the front frame of the table and is provided with a pair of transverse sills or supports 33 on which the flask sections may be supported during the operations of filling and ramming the same. These sills are placed sufficiently close together to enable a flask section to be supported thereon with its ends overhanging the sills, permitting the same to be readily grasped from beneath. When a section is turned on its side, the space between the sills 33 receives the clamp member carried thereby.

The molder's bench constructed as above described, is exceeding cheap of production and convenient in operation. The shape of the tie 23 enables the bench to straddle the sand pile, while the provision of the rollers 9, carried by the rear member of the frame, enables one man to shift the bench as the sand pile is consumed. The various shelves and the bench proper are convenient of access to the workman, and the bench, as a whole, is extremely efficient and convenient. The brace 23 forms a strong bridge for the front end of the bench proper and a firm brace for the legs 15.

I claim—

1. In a molder's bench, the combination of a front frame member and a rear frame member, each comprising a pair of vertical legs, each leg being provided at its upper end with a bracket, braces connecting the brackets of said members, and a shelf supported at each side of said frame by the brackets thereat, substantially as specified.

2. A molder's bench comprising in combination a frame comprising legs, formed of piping, the opposite ends of which are threaded, castings into which the lower ends of said legs are threaded and forming feet, each of said castings being provided with a threaded nipple, braces threaded into the nipples of said castings, and thereby connecting said legs, a bench proper supported by said frame, upwardly inclined nipples formed on certain of said feet, and braces engaged with said nipples and with said bench proper, substantially as specified.

3. In a device of the character set forth, the combination of front and rear frame members, each having a pair of legs, brackets carried by the upper portions of the front and rear legs, shelves extending from front to back of the frame and supported by said brackets, a brace connecting the brackets carried by the front legs, and a bench extending from front to back of the frame and supported by said brace, substantially as specified.

4. In a device of the character set forth, the combination of front and rear frame members, each having a pair of legs, brackets carried by the upper portions of the front and rear legs, a brace connecting the brackets carried by the front legs, a brace connecting the rear legs, and a bench extending from front to back of the frame and supported by said braces, substantially as specified.

5. In a molder's bench, the combination of a front frame member comprising a pair of legs each having at the upper portion thereof a bracket, shelves supported by said brackets, a bench proper arranged interiorly between said brackets, and a brace connecting said brackets and supporting said bench, substantially as specified.

6. In a molder's bench, the combination of a front and a rear frame member, a brace extending transversely of said frame and carried by the rear member thereof, a brace carried by the front member and extending transversely of said frame, said brace having

a central flattened portion in about the same horizontal plane as the rear brace and being provided with downwardly inclined portions connecting such central portion with the legs of the front frame member, and a bench proper extending from front to rear of the frame and supported on the central portions of the aforesaid braces, substantially as specified.

7. In a molder's bench, the combination of a front and a rear frame member each having a pair of legs, means connecting the legs of the front member with the legs of the rear member, brackets supported by the upper portions of the said legs, shelves extending longitudinally of said bench and supported by said brackets, a brace connecting the lower portions of the legs of the front member, said brace extending upwardly from each of said legs, and being provided with a central horizontal portion, a brace connecting the brackets on the upper ends of said legs, said brace extending downwardly from said brackets and being provided with a central portion in substantial alinement with the central portion of the former brace, and a bench proper extending from front to rear of the frame and having its front portion supported on the alined central portions of the said braces, substantially as specified.

8. In a molder's bench, the combination of a front and a rear frame member each having a pair of legs, means connecting the legs of the front member with the legs of the rear member, brackets supported by the upper portions of the said legs, shelves extending longitudinally of said bench and supported by said brackets, a brace connecting the lower portions of the legs of the front member, said brace extending upwardly from each of said legs, and being provided with a central horizontal portion, a brace connecting the brackets on the upper ends of said legs, said brace extending downwardly from said brackets and being provided with a central portion in substantial alinement with the central portion of the former brace, a third brace connecting the legs of the rear member, and a bench proper extending from front to rear of the frame and having its rear portion supported on the last mentioned brace and its front portion supported on the alined central portions of the other braces, substantially as specified.

9. In a molder's bench, the combination of a front and a rear frame member, means for connecting the legs of the front member, said means comprising a casting on the lower end of each of the front legs and provided with an upwardly extending nipple, a brace having a central horizontal portion and a downwardly inclined portion extending from each end of said central portion and threaded into one of said nipples, and a bench supported by the horizontal portion of said brace, substantially as specified.

10. In a molder's bench, the combination of a front and rear frame member, each comprising a pair of legs, the front member comprising a pair of legs each having on the lower end thereof a casting provided with an upwardly and inwardly extending nipple, a brace for the front legs, said brace comprising a tube having a horizontal portion and a downwardly inclined portion extending from each end of the central portion and threaded into the nipple of a casting, a brace connecting the legs of the rear member, and a bench proper supported by the latter brace and by the horizontal portion of the former brace, substantially as specified.

11. In a molder's bench, the combination of a frame comprising a front and a rear frame member, each having a pair of legs, connections between the legs of the said frame members, braces connecting the legs of each member, each of said braces being provided with a supporting surface intermediate between the top and bottom of the legs of its frame member, and a bench proper supported by such supporting portions of said braces, substantially as specified.

12. In a molder's bench, the combination of a front and a rear member, each comprising a pair of legs, means for connecting the legs of the rear frame member, a brace connecting the legs of the front member, said brace being provided with a central horizontal portion and an inclined portion connecting said horizontal portion with one of the front legs, and a bench proper extending from front to back of the frame and having its front portion supported by the horizontal portion of said brace, substantially as specified.

13. In a molder's bench, the combination of a front and a rear frame member, each having a pair of legs, a brace connecting the legs of the rear member, a brace connecting the legs of the front member, the latter brace having a central substantially horizontal portion with downwardly inclined portions extending from opposite ends of such horizontal portion and connecting the same with the legs of the front member, and a bench proper extending from front to rear of the frame and having its front portion supported by the horizontal portion of the last mentioned brace, substantially as specified.

14. A molder's bench comprising in combination a frame, a shelf supported by the frame between the ends thereof, said shelf being provided with metal strips adjacent the edges thereof, and a shelf supported by said frame above the first mentioned shelf.

15. In a molder's bench, a frame, a shelf supported by said frame between the ends thereof, metal strips upon said shelf adjacent the edges thereof, a second shelf mounted upon the frame above the first mentioned shelf and extending longitudinally of the said frame.

16. In a molder's bench, a frame, a shelf extending from front to rear of said frame, and a shelf supported from the frame above the first mentioned shelf, and extending at right angles thereto.

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

JERRY M. HUDSON.

Witnesses:
J. B. HULL,
E. I. HUTCHINSON.