(Model.)

W. H. STANNARD.

BENCH DOG.

No. 282,792. Patented Aug. 7, 1883.

Fig. 1

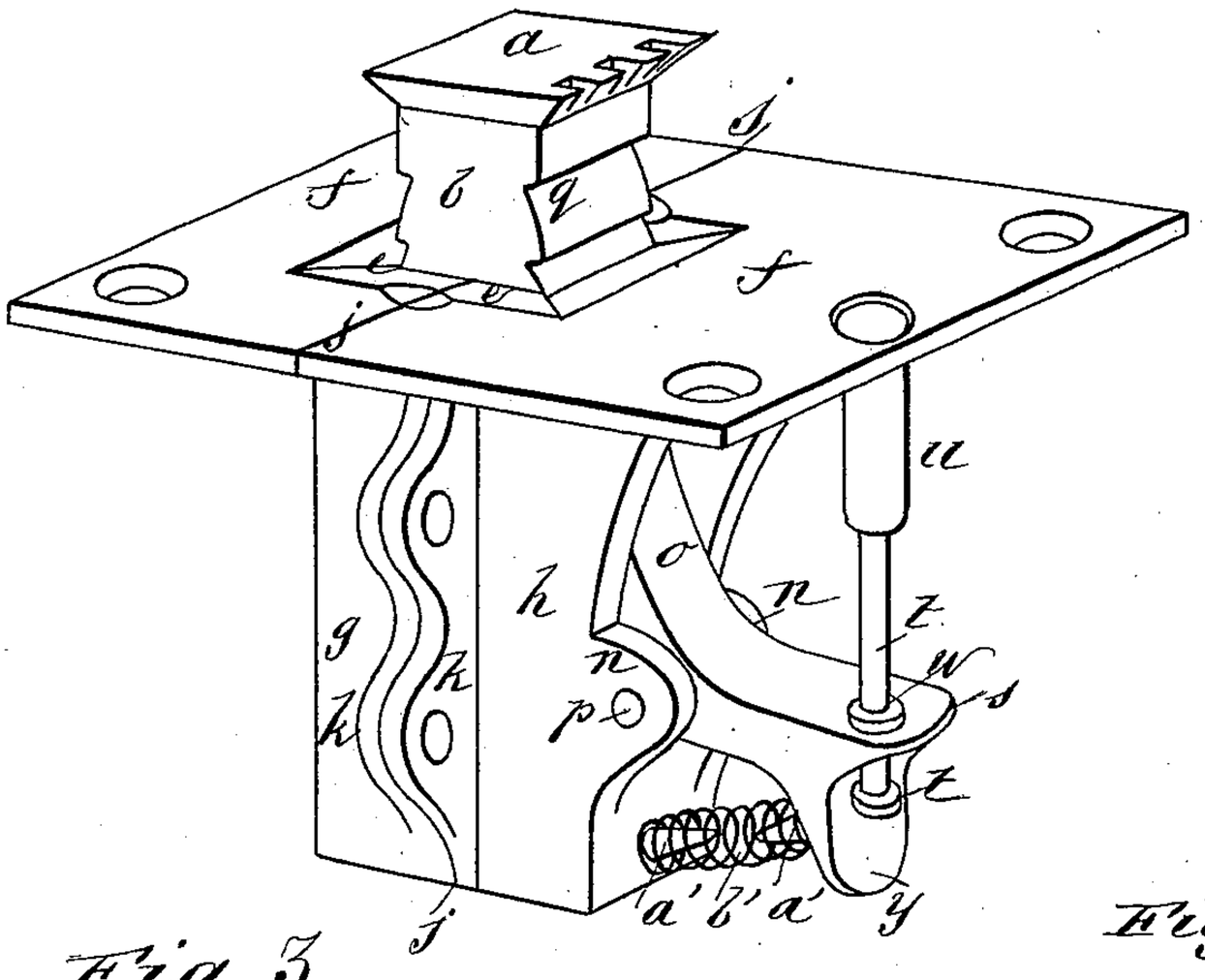
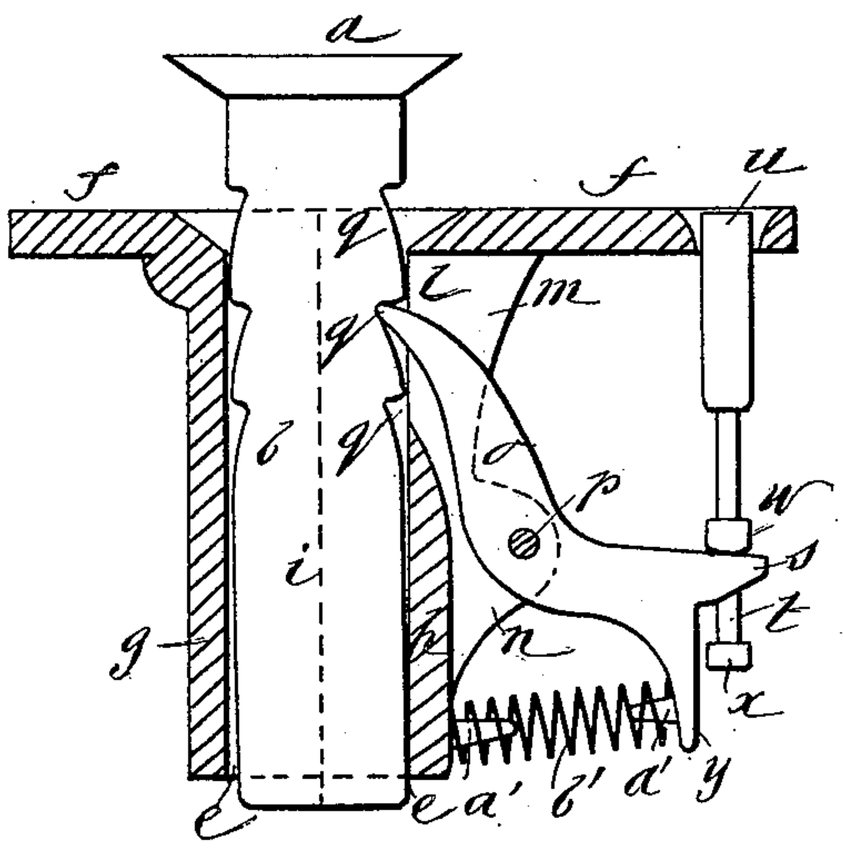


Fig. 3

Fig. 2



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BENCH-DOG.

SPECIFICATION forming part of Letters Patent No. 282,792, dated August 7, 1883.

Application filed April 18, 1883. (Model.)

To all whom it may concern:

Be it known that I, WILLIAM HENRY STANNARD, of Lyme, in the county of New London and State of Connecticut, have invented a new and Improved Bench-Dog, of which the following is a full, clear, and exact description.

My invention consists of improvements in the construction of bench-dogs for carpenters, cabinet-makers, and others, the object of which is to provide dogs better calculated for substantial practical use and greater durability, and at the same time being simpler to make than any now in use, as hereinafter described.

Reference is to be had to the accompanying dawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of my improved bench-dog. Fig. 2 is a side elevation; and Fig. 3 is a sectional elevation taken on the line *x x* of Fig. 2.

Like other bench-dogs, my improved dog consists, essentially, of a hook-head, *a*, formed on the top of a shank, *b*, that is fitted in a vertical socket, *e*, that has a top flange, *f*, the shank of the hook being provided with means for setting it higher or lower in the socket, and the socket being adapted to be set in the top of the bench, with its top flush with the top of the bench. For making a very substantial and reliable bench-dog for practical use, and at the same time contriving to make it in the simplest and cheapest manner, and with the least amount of fitting, I propose to make the socket and top flange in two separate castings, *g* and *h*, each having a groove or channel for its part of the socket *e*, and also having part of the top flange, *f*, the said parts *g* and *h* being joined together along the middle of the socket, as indicated by the dotted line, *i*, Fig. 3, and the solid lines *j*, Fig. 1, and fastened by riveting the flanges *k* together, each part being provided with said flanges for the purpose. The part *h* is cast with an opening, *l*, through the side, forming the bottom of the groove or channel for the socket; also with strengthening ribs or flanges *m* each side of the opening to compensate for the lack of metal at the opening, and also with the ears *n* below the opening, in which I pivot a lever-pawl, *o*, at *p*, that is employed to hold the hook-head up by notches *q* in the shank, into which the pawl projects through the said opening *l*. This lever-pawl has an arm, *s*, extending back of the pivot *p*, horizontally or thereabout, through which the stem *t* of a push-bit, *u*, extends for disconnecting the pawl from the shank of the hook when required by pressing down on the push-bit, which extends up through the top flange, *f*, to be pressed by the finger. A collar, *w*, on said stem rests on the top of arm *s* for applying the pressure to it, and another collar, *x*, below, prevents the stem from being detached. Another arm, *y*, extending downward from arm *s* of the lever-pawl parallel to the socket *e*, and having a prong, *a'*, serves, together with another prong, *a'*, cast on the socket, to connect the spiral spring *b'*, by which the lever-pawl *o* is held in the notches *q* of the shank of the hook-head. The shank of the hook-head and its socket are made square, to afford broad and substantial bearing-surfaces that will not turn or shift out of place in case the thrusts of the tool on the work happen to be oblique to the hook, and the pawl and spring are located in front of the hook, and the spring is required to be sufficiently strong to bear the hook-shank *b* back against its bearing, so as to prevent any chattering under the thrusts of the tool. It is to be noted that both of these parts of the socket and top flange can be molded as plain patterns, so as to dispense with cores, which is one of the objects in making them in separate parts. Another object is the greater facility of smoothing and truing the socket-space, which the separate parts afford in case any lumps, bulges, or other imperfections of the casting have to be removed, which is frequently the case; and another and more imporant advantage of the separate construction is that the liability of imperfect castings, due to lack of care in setting the core for coring out the socket in one piece, is wholly avoided.

It will be seen that the only fitting required in the construction of this improved bench-dog consists of boring the rivet and screw holes and the hole in arm *s* for the stem of the push-bit, fitting in the rivets, and providing the spring.

The shank *b* of the hook-head may have all its sides notched, so that the hook-head may be shifted around in case it breaks on one or more sides. This hook-head and its shank are to be cast also, the notches for the pawl being formed in the casting.

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

1. In a bench-dog, the socket and top flange constructed in two parts, each having a groove forming part of the socket, and both parts being provided with flanges by which they are fastened together, substantially as described.

2. In a bench-dog, the combination of the lever-pawl, having a horizontal arm from which depends a vertical arm, with a socket between ears, on which the pawl is pivoted, the notched hook-shank, the spring acting upon the pawl, and the push-bit connected to the horizontal arm of the pawl, and arranged to be operated by the finger, substantially as and for the purpose set forth.

3. In a bench-dog, the combination, with the notched hook-bar, of the lever-pawl adapted to engage with said bar, and the spring located in front of the hook and connected to the pawl to press said hook back in the direction the work presses it to prevent chattering by the hook, substantially as set forth.

WILLIAM HENRY STANNARD.

Witnesses:
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