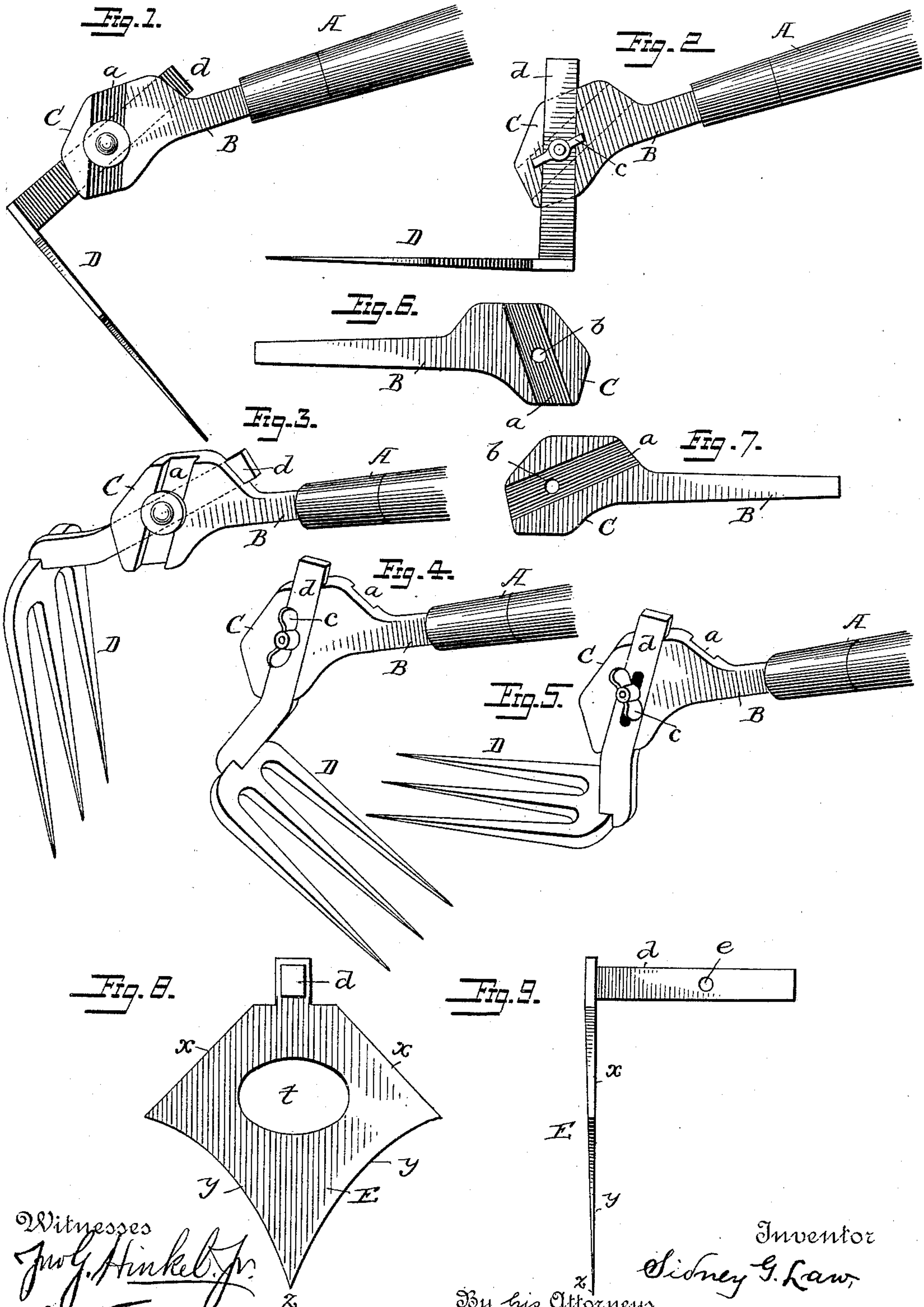


(No Model.)

S. G. LAW.
TOOL HOLDER.

No. 436,362.

Patented Sept. 16, 1890.



Witnesses
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UNITED STATES PATENT OFFICE.

SIDNEY GIBBS LAW, OF WEST NEW BRIGHTON, NEW YORK.

TOOL-HOLDER.

SPECIFICATION forming part of Letters Patent No. 436,362, dated September 16, 1890.

Application filed November 23, 1889. Serial No. 331,321. (No model.)

To all whom it may concern:

Be it known that I, SIDNEY GIBBS LAW, a citizen of the United States, residing at West New Brighton, in the county of Richmond and State of New York, have invented certain new and useful Improvements in Tool-Holders, of which the following is a specification.

My invention is an improvement in holders designed for use in connection with tools, which may be adjusted to different positions in the holder or be detached therefrom and replaced by other tools; and my invention consists in the novel construction hereinafter fully set forth, embodying a convenient, durable, and inexpensive device of the character indicated.

The invention also consists in the combination, with the holder, of a tool of peculiar form specially adapted for employment therewith and peculiarly fitted for working around small plants, although the holder may with equal facility be employed in connection with tools designed for other purposes.

In the drawings, Figure 1 is a partial side view of an implement embodying my invention. Fig. 2 is a similar view showing the tool proper adjusted to a different position in the holder. Figs. 3, 4, and 5 are also perspective views showing the holder in connection with a different form of tool, the latter being adjusted in the respective views to the various positions required for different kinds of work. Figs. 6 and 7 are detail views of the shank of the holder detached; and Figs. 8 and 9 are detail views of a novel form of hoe specially constructed for employment with the improved holder.

The handle A, which may be of usual form, is preferably constructed of wood and is provided with a stout metal shank B, firmly seated therein in the ordinary manner, and constituting with the handle the holder. This shank terminates at its free end in an enlargement or flat head C, the opposite sides of which are substantially parallel, and in each side face of the head is a deep laterally-open channel or groove *a*, arranged obliquely to the plane of the body of the shank, the groove on one side having a greater degree of inclination than that on the other. The channels or grooves thus arranged preferably cross each other, as shown, and constitute the

seats for the tools to be presently described, a threaded or plain opening *b* being provided at the point of crossing to receive a thumb-screw *c* or bolt or other suitable clamp for securing the tools firmly in place.

Each tool D is provided with a tang *d*, extending rearwardly therefrom and having a suitable opening *e* for the passage of the securing-screw *c*, and this tang is preferably rectangular in cross-section and is adapted to the correspondingly-shaped channels or grooves *a* in the head C of the holder, the grooves, as stated, thus forming close-fitting seats or bearings into which the tang may be detachably locked.

By inserting and securing the tang of the tool in the one groove or the other, as desired, the tool may be conveniently adjusted to the handle in different positions with respect thereto, thereby rendering the same tool serviceable for various purposes. Thus in Fig. 1 the tool, which in this instance is a hoe, is secured in the groove *a* having the greater degree of inclination relative to the holder, and is thereby capable of use as an ordinary pull-hoe, while in Fig. 2 the hoe is reversed in position and its tang inserted in the groove on the opposite side of the head, thus converting the tool into a scuffle or pull-and-push hoe.

In Figs. 3, 4, and 5 the holder is illustrated as applied to a pronged hoe or rake, the first-mentioned view showing the tool when arranged to be used as a potato-hook, the next view in order showing the tool differently positioned in the holder, so as to enter the ground at a more acute angle for service as a cultivating-drag, while in the other figure the tool is reversed and may be employed as a pitchfork.

The novel form of hoe illustrated in detail in Figs. 8 and 9 is particularly serviceable in connection with this kind of holder for loosening up the soil and cutting away weeds around plants. This hoe, as shown, consists of a flat blade E, having two straight edges *x x*, diverging substantially from the point of connection of the blade with the tang thereof, and two longer inwardly-curved edges *y y*, springing from the ends of the straight edges and running to a point *z*, an oval-shaped opening *t* being arranged about in the center of the blade

to prevent the accumulation or clogging of earth thereon. The hoe thus constructed, when used as a scuffle-hoe, as represented in Fig. 2, penetrates the ground very readily, owing to the acute angle of its sides, while at the same time the curved edges render it very effective for circling around and cutting close to the stems of plants.

The opening in the hoe-blade, while preventing the soil from adhering thereto in quantity, as stated, permits a limited portion of soil to pass up through it, and thus aids in breaking up the soil.

The opening *e* in the tang *d* may, if desired, be elongated, as indicated in Fig. 5, to permit the adjustment of the tool to and from its supporting-head.

It will be apparent, also, that instead of having the walls of the channels in the head parallel to form bearings of uniform size throughout, as shown, the walls may converge toward the upper ends of the channels, or the channels may be dovetailed, if desired, and in each case the tangs of the tools will of course be shaped accordingly to insure a proper fit of the parts.

Although I have shown the improved holder only in connection with garden-tools, it is to be understood that I do not restrict myself to such use alone, as it may with equal facility be employed in connection with other tools and for other purposes.

I claim—

1. A tool-holder provided with a flat head having independent laterally-open bearing-channels therein on its opposite sides, ar-

ranged at different angles with respect to the handle, and each channel adapted to receive and hold a tool, substantially as described.

2. A tool-holder provided with a flat head having parallel sides, an independent laterally-open bearing-channel in each of said sides, said channels being arranged at different angles with respect to each other and each adapted to receive a tool, and a clamp for detachably securing the tool in either channel, substantially as described.

3. The combination, of a holder and a tool consisting of a blade having a tang, an opening *t*, and curved side edges *y y*, meeting to form a point *z*, substantially as described.

4. The combination, with a holder, of a detachable tool consisting of a flat blade having a tang, straight side edges *x x*, diverging therefrom, and inwardly-curved edges *y y*, springing from the straight edges to form lateral points and meeting to form a terminal point *z*, substantially as described.

5. The combination of the holder having bearings arranged at different angles and a tool consisting of a blade provided with a tang fitting either of said bearings, an opening *t*, straight side edges *x x*, and inwardly-curved edges *y y*, meeting the straight edges and running to a point *z*, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

SIDNEY GIBBS LAW.

Witnesses:

JAMES COTTERELL,
C. C. PINCKNEY.