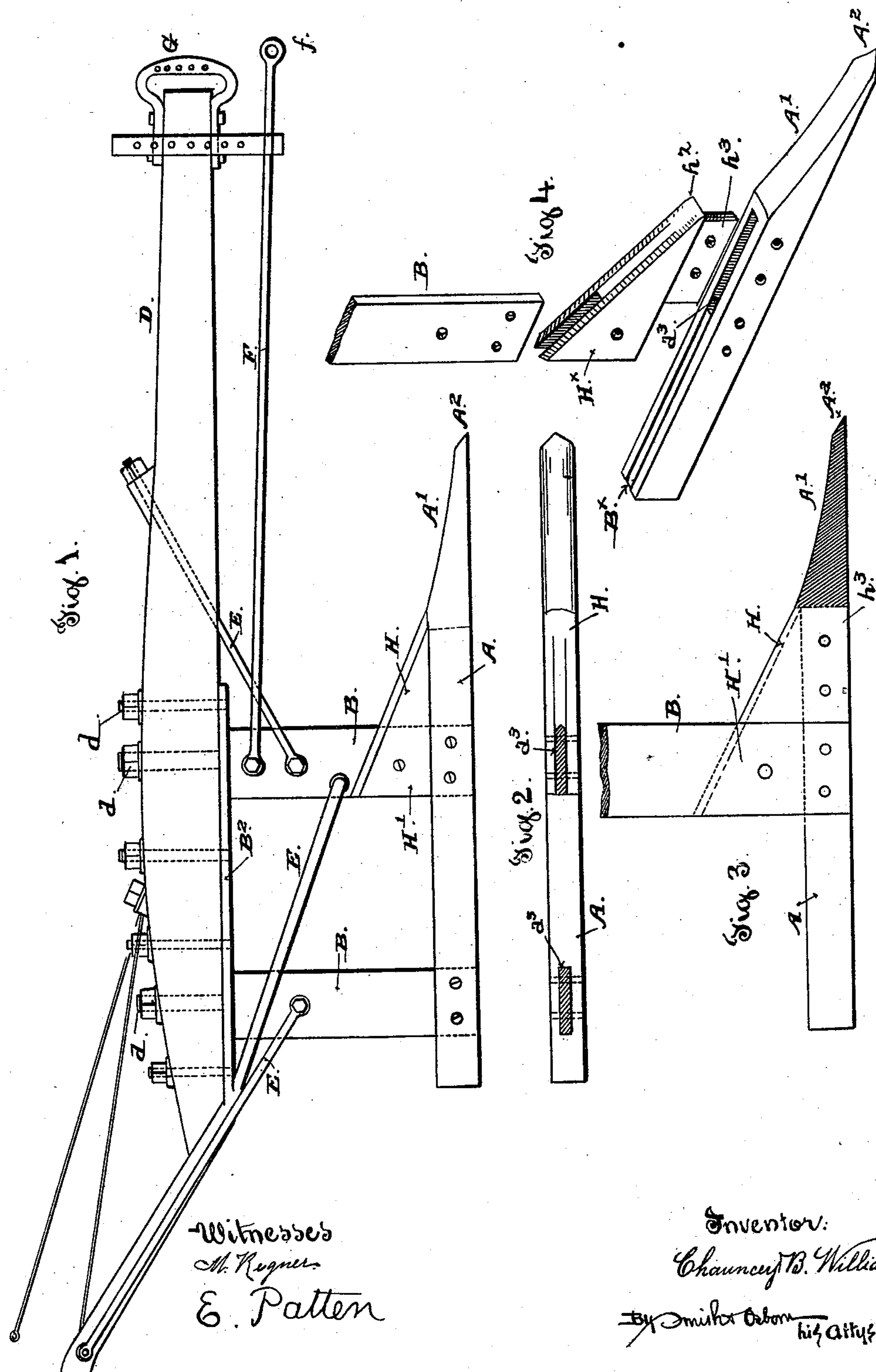


(No Model.)

C. B. WILLIAMS.
PLOW FOR STREET OR ROAD WORK.

No. 538,991.

Patented May 7, 1895.



UNITED STATES PATENT OFFICE.

CHAUNCEY B. WILLIAMS, OF SAN FRANCISCO, CALIFORNIA.

PLOW FOR STREET OR ROAD WORK.

SPECIFICATION forming part of Letters Patent No. 538,991, dated May 7, 1895.

Application filed March 2, 1894. Serial No 502,126. (No model.)

To all whom it may concern:

Be it known that I, CHAUNCEY B. WILLIAMS, a citizen of the United States, residing in the city and county of San Francisco, State of California, have invented an Improved Plow for Street or Road Work, of which the following is a specification.

My invention has for its object the production of an implement for tearing up stone pavements, cutting and breaking up old asphaltum and bituminous rock pavements, loosening and breaking up macadam, cutting trenches in the operations of laying sewers, gas-pipes and water-pipes, and generally for performing all such character of work on streets and roadways as a substitute for and an improvement upon hand labor.

The implement is especially useful in the work of tearing up old paved work and removing macadamized pavements preparatory to relaying a new pavement, and it will be found particularly valuable in such and similar operations.

The invention consists in certain novel construction and combination of sole, or bottom-bar cutters and standards and a frame or beam with guiding-handles and clevis or means for attaching power to draw it, as hereinafter fully explained and set forth in the claims.

The following description explains the nature of the said improvements and the manner in which I have constructed and applied the same in the production of my said implement; reference being had to the accompanying drawings, forming part of this specification.

Figure 1 is a side elevation of the implement. Fig. 2 is a horizontal section taken at the line $x x$, Fig. 1, and looking from above that line. Fig. 3 is a longitudinal section taken in a vertical plane through the center or about on the line $x y$, Fig. 2. Fig. 4 represents the parts in perspective detached from one another but in about their relative position.

A— indicates a long narrow sole or bottom-bar of substantially rectangular shape in cross section and of uniform thickness excepting at and for a distance back of one end —A', which is chamfered and somewhat rounded on the top face for a distance about one quarter of the length of the bar, more or less, outward to the end where a beveled and pointed nose —A²— is formed. Along the bar before men-

tioned there are slots —a³— formed to receive the lower ends of upright plates or standards constructed of broad, flat plates —B—B. The lower ends of these plates are secured in the slots before mentioned by screws or bolts with countersunk heads set through the sole-bar —A— from one side. On the upper ends of the plates —B— are horizontal flanges —B²— with holes for bolts —d— —d— by which the uprights —B— are fastened to the under side of a draft-beam —D.

Ordinarily, the lower ends of the standards —B— are let into separate slots in the sole-bar —A, as shown in Figs. 1 and 2, but in some cases a single long slot is made for that purpose as represented in Figs. 3 and 4. This last described construction also contemplates the use of one standard instead of the double standards represented in Fig. 1, in which case a filling-piece or block —B^x— may be set into the sole-bar behind the standard to fill up the open slot in the bar when such extends through the center of it and back to the heel.

Braces and strainer rods —E— —E— are secured by bolts and nuts —e— —e— to the standards —B— and to the beam —D— at suitable points to strengthen the structure and to apply the lines of draft in the most favorable direction to the standards from below the beam. A draft-rod —F— also secured to the front standard is carried along under the beam to the front end thereof where it terminates in an eye —f, just under the clevis —G.

Against the upright leading edge of the front standard is fixed a triangular block or piece —H— with the shortest side toward the standard and its longest side setting uppe- most. This piece corresponds in thickness with the sole-bar —A, and at the perpendicular shortest end it is slotted, as seen in Fig. 4, to let in the standard —B, so that the sides —H^x— of the piece before mentioned extend backward outside and over the sides of the standard, while the perpendicular face is about flush with or does not project beyond the perpendicular face of the sole-bar —A— on each side.

The upper edge of the before mentioned piece has such degree of upward inclination that it forms practically a continuation of the chamfered face of the sole-bar —A— back-

ward to the leading edge of the front standard, and also along both sides of the standard to its rear edge.

The bottom edge and the point — h^2 — of the before mentioned piece —H— fit closely against the top-face of the sole-bar —A, and the point and that portion lying in front of the standard are stiffened and kept from springing under transverse strains by a thin tongue or tenon — h^3 — formed on the bottom of the piece and fitted into a slot or a mortise in the top of the sole-bar.

This construction and arrangement of the parts —A— —B— and —H— will be understood from the views of these parts given more particularly in detail in Figs. 3 and 4. The beam —D— to which these parts are fixed is a heavy straight bar similar to the beam of a heavy draft plow, with handles of ordinary construction extending backward from the rear end and tie-rods from the ends of the handles to the beam. At the front end is fixed a plow clevis of ordinary character provided with a number of holes for regulating the line of draft.

The standards and the parts secured to their lower ends are put together by tap-belts or screws in such manner that while the required strength is secured in the joints the parts can readily be taken apart to repair the

implement in any part or to replace worn or broken parts.

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

1. The combination in a plow frame and its beam and slotted sole bar, of a triangular block also slotted at the rear portion thereof and having a tenon adapted to fit into the slot or mortise of the sole-bar, a brace or standard B fitting into the slot of the triangular block and sole-bar and united by bolts, as described.

2. The combination substantially as hereinbefore set forth, of the slotted sole-bar A one or more standards fixed in said bar and adapted for securing said bar to a draft-beam and the triangular block or filling piece having a slot to let in the front standard and adapted both at the front of and along the sides of the standard by its length and thickness to fill the angles between the top-face of the sole-bar and the standard.

In testimony that I claim the foregoing I have hereunto set my hand and seal.

CHAUNCEY B. WILLIAMS. [L. S.]

Witnesses:

EDWARD E. OSBORN,
M. REGNER.