

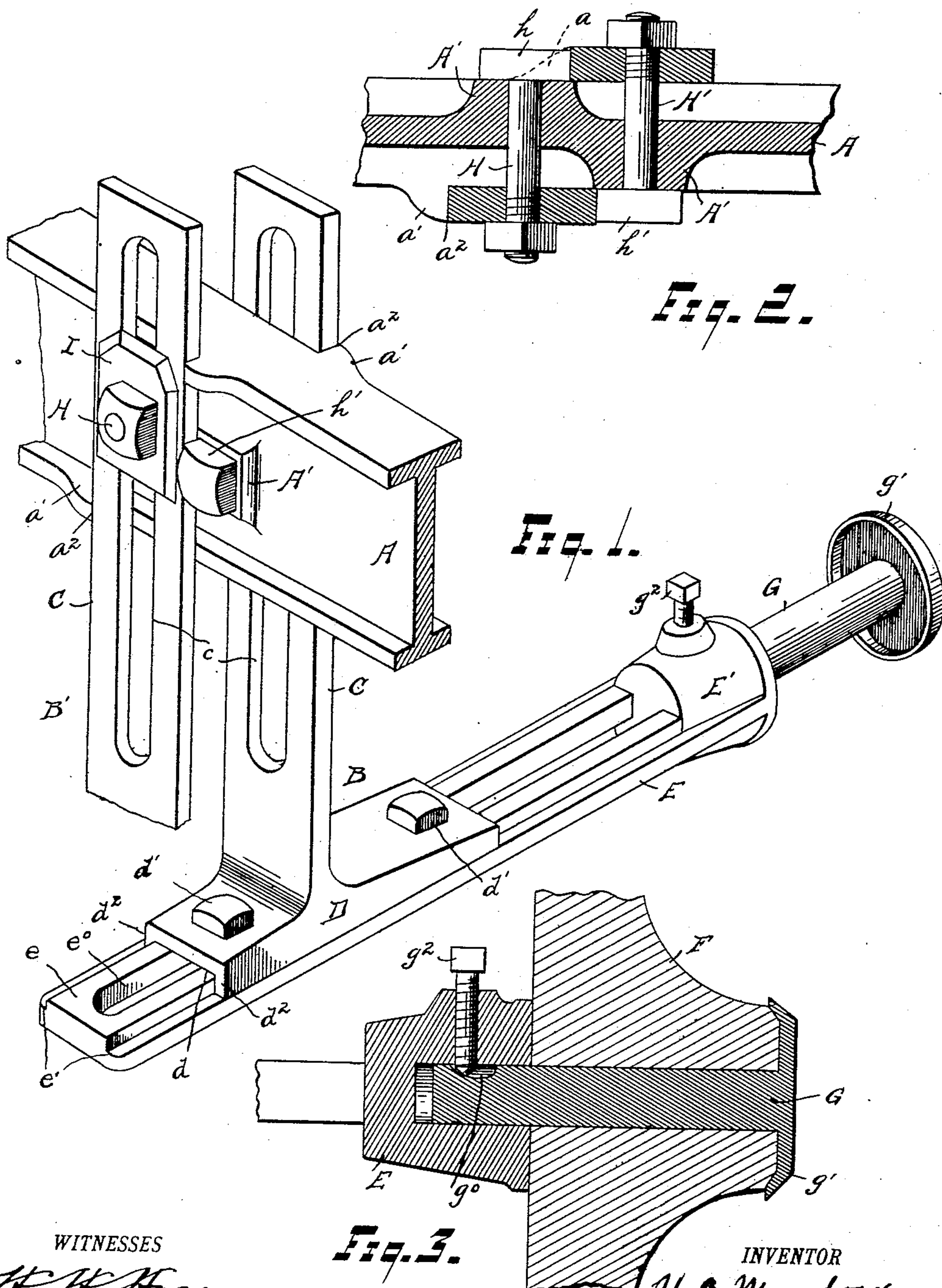
No. 715,119.

Patented Dec. 2, 1902.

H. B. MURDOCK.
PLOW ATTACHMENT.

(Application filed Apr. 5, 1902.)

(No Model.)



WITNESSES
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Fig. 3.

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UNITED STATES PATENT OFFICE.

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PLOW ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 715,119, dated December 2, 1902.

Application filed April 5, 1902. Serial No. 101,556. (No model.)

To all whom it may concern:

Be it known that I, HORACE B. MURDOCK, a citizen of the United States of America, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Plow Attachments; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improved attachments for plows, and is especially adapted for use in connection with plows of the type illustrated in my former application, Serial No. 73,971, filed August 31, 1901, wherein the plow is provided with a land-wheel which travels on the surface of the unplowed land and also another wheel adapted to travel in the furrow and act as a gage for regulating the movement of the plow-point for laying off the furrows in parallel lines of a predetermined distance apart and of even depth.

The principal feature of my present invention resides in the means of attaching the hanger-bars, which are vertically and laterally adjustable, and the manner of mounting the wheels on the hanger-bars.

To more fully describe my invention, reference is had to the accompanying drawings, in which—

Figure 1 shows a section of the plow-beam and the manner of attaching the hanger-arms. Fig. 2 is a sectional detail view showing the manner of securing the hanger-bars to the plow-beam, and Fig. 3 is a sectional detail view showing the manner of mounting the wheels on the horizontal webs of the hanger-bars.

A is the plow-beam, I-shaped in cross-section and provided on its horizontal webs with the outwardly-projecting lugs a and a' , having a straight edge surface a^2 at right angles to the plow-beam. The lugs a and a' are so disposed relative to the plow-beam that the lugs on each side are spaced apart longitudinally thereof for a distance equal to the width of the vertical webs of the hanger-bars. The vertical web of the plow-beam A is also preferably provided with the raised or projecting

surfaces A' at the point where the bolts are adapted to be passed through the plow-beam for supporting the hanger-bars.

B and B' are the hanger-bars, the lower part of the hanger-bar B' being omitted for simplicity of illustration, it being similar in construction to the hanger-bar B. These hanger-bars consist of the vertical web C and the horizontal web D, which projects outwardly on both sides of the vertical web. The vertical web C has a slot c longitudinally thereof, and the horizontal arm D is channeled on its underneath face, as shown at d , Fig. 1, for a purpose hereinafter mentioned. The projecting ends of the horizontal webs D are perforated to receive the clamping-bolts d' .

E is a laterally-adjustable support for the axle and wheel and consists of a rectangular plate provided at one end with the enlarged hollow head or bearing E' . The plate E is slotted longitudinally, as at e^0 , and has flanged or grooved edges e' . This plate is adapted to slide in the channeled web D of the hanger-bar, the projections d^2 of the web D engaging the grooved edges e' of the plate E and the raised portion e of the plate fitting snugly in the channel d of the web D, as clearly shown in Fig. 1. This plate E is held from lateral movement by the clamping-bolts d' , which pass through the slot e^0 and firmly bind the plate and web together. It is obviously apparent that this plate can be readily adjusted by loosening the bolts d' and sliding the plate the desired distance and again clamping the same.

F represents the hub of the wheel, which is mounted on the axle G and held in place by the cap g' or any other suitable means, such as a nut. The axle G has an inclined notch g^0 at its inner end adapted to receive an adjustment-screw g^2 , which when screwed home will take up any wear and prevent the wheel from becoming loose on the axle. Vertical adjustment of the axle is provided for by the construction and manner of securing the vertical webs of the hanger-bars.

The vertical webs B B' being equal in width to the longitudinal distance between the lugs a a' , when they are fitted in place on opposite sides of the plow-beam they rest snugly be-

tween the upper and lower lugs a a' , which prevents a lateral movement of the same. Vertical movement is regulated by means of the bolts H H' , which pass through the slots c and the plow-beam A and securely clamp the hangers in place. It will be noted that when the bolts are in place the heads h and h' rest squarely against the side of the hanger opposite to the one it secures, thus doing away with the necessity of employing two wrenches when assembling the parts and also assisting to hold the hanger-bars rigidly in place. Suitable washers I may be interposed between the nuts on the bolts H and H' , as is obvious.

Thus it will be seen that I have invented a simple and efficient device whereby the wheels may be adjusted vertically and laterally independently of each other.

Having now described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

1. In a plow, the combination with an I-shaped plow-beam having oppositely-disposed lugs formed on the top and bottom webs of said I-beam and a shoulder or raised portion on the vertical web of said beam; of a pair of slotted hanger-bars adapted to be held between said lugs, bolts passing through said slotted hanger-bars and beam for clamping the same together, the heads of said bolts adapted to rest on said shoulders or raised

portions and engage the side edge of the hanger-bar opposite the one it clamps.

2. In a plow, the combination with the plow-beam; of hanger-bars adjustably secured thereto, a channeled transverse web formed at the base of said hanger-bars, slotted axle-supports slidably mounted in said channeled transverse web, and bolts engaging said slotted axle-support and said transverse web, for securing the same together.

3. In a plow, the combination with a plow-beam having laterally-projecting lugs, of a hanger-bar provided with a slotted vertical web and a horizontal channeled web, and a slotted axle-support adjustably secured in the channel of said web.

4. In a plow, the combination with the plow-beam, of a hanger-bar adjustably secured thereto, an axle-support adjustable laterally of said hanger-bar, a hollow head formed on said axle-support, an axle, having an inclined notch cut in its inner end, fitted in said hollow head and a screw in said head engaging said inclined notch for holding said axle rigid.

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

HORACE B. MURDOCK.

Witnesses:

H. H. HAGER,
H. W. SCHMEMANN.