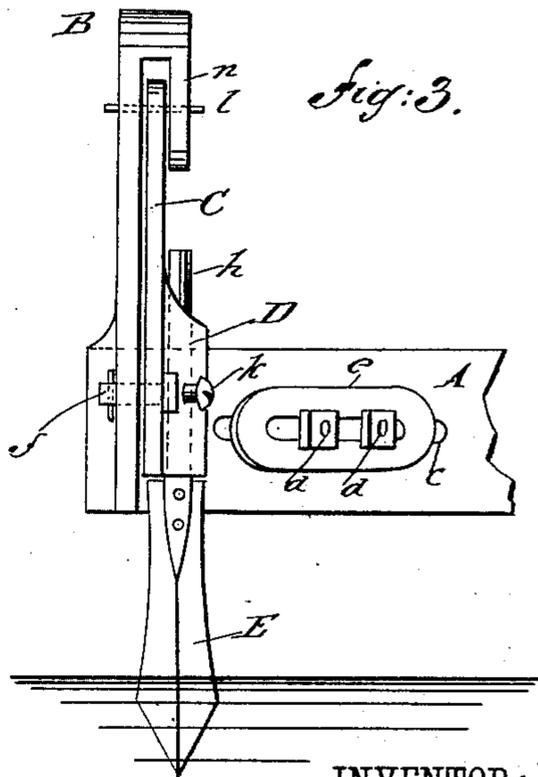
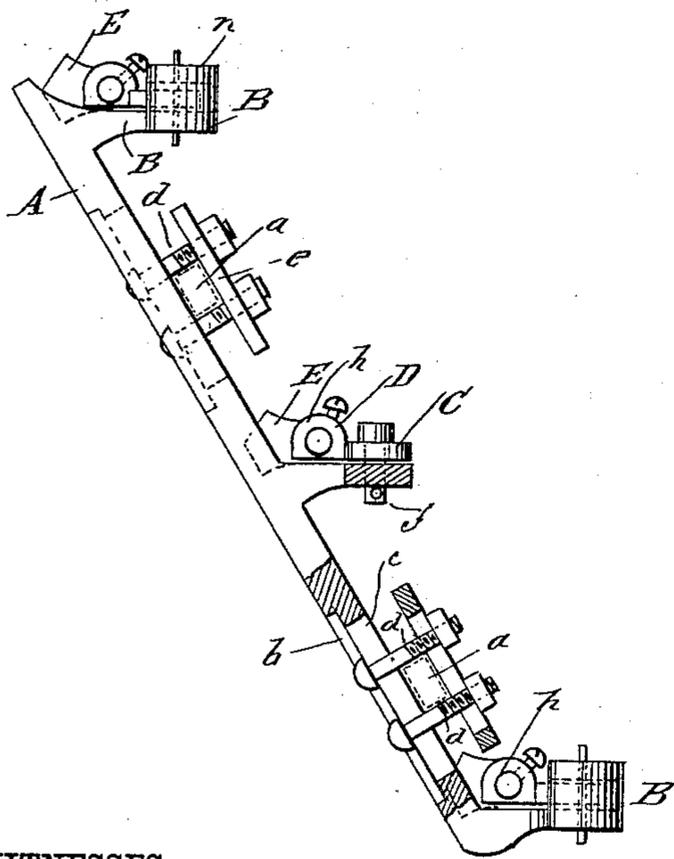
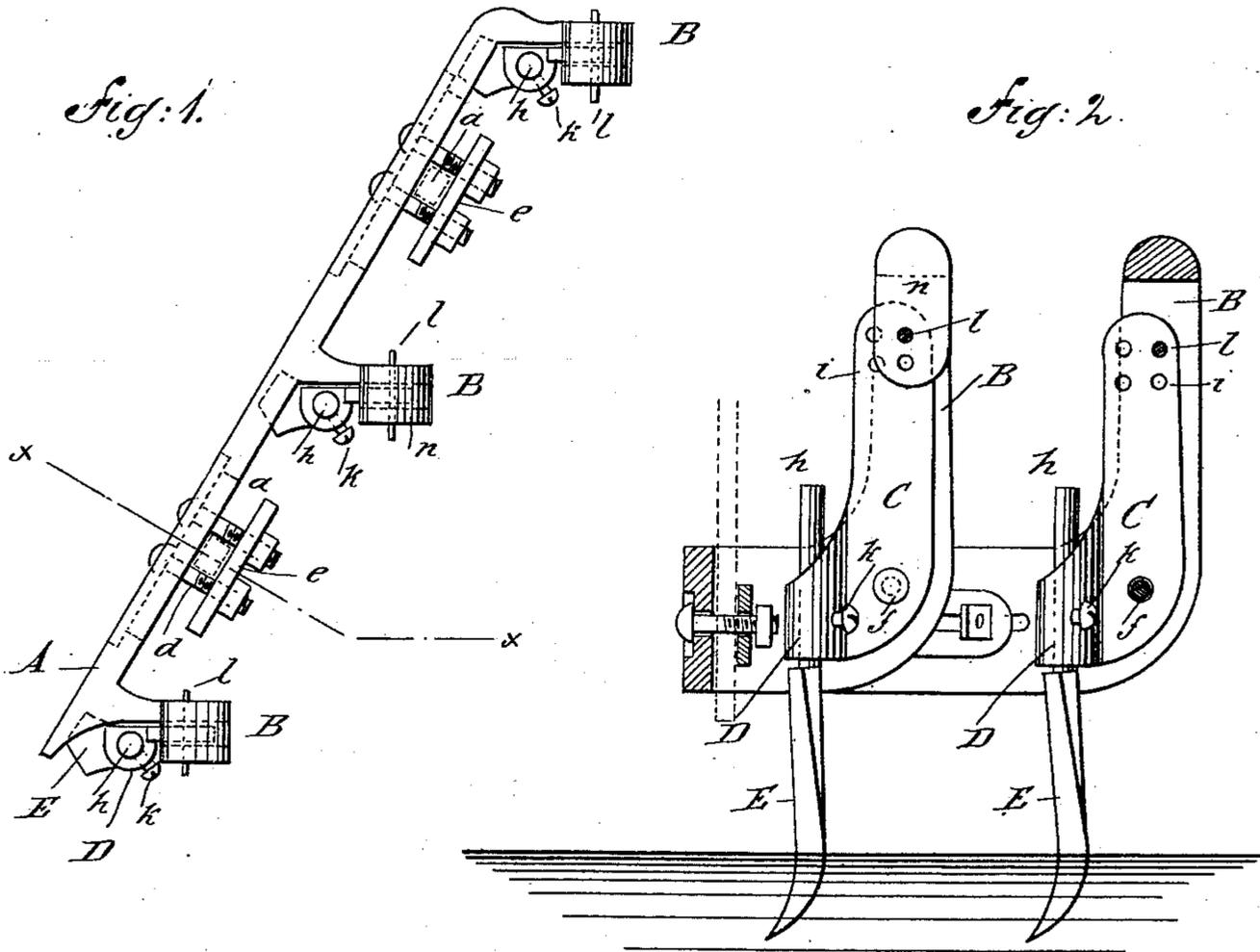


(No Model.)

G. W. CAMPBELL.
CULTIVATOR ATTACHMENT.

No. 348,721.

Patented Sept. 7, 1886.



WITNESSES:

Chas. Nida
John Kemmon

INVENTOR:

G. W. Campbell

BY *Manu L.*

ATTORNEYS.

UNITED STATES PATENT OFFICE.

GEORGE W. CAMPBELL, OF ALAMO, INDIANA.

CULTIVATOR ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 348,721, dated September 7, 1886.

Application filed February 12, 1886. Serial No. 191,763. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. CAMPBELL, of Alamo, in the county of Montgomery and State of Indiana, have invented a new and Improved Cultivator Attachment, of which the following is a full, clear, and exact description.

The invention relates to the construction of a cultivator attachment wherein the blades or shovels are adjustably connected to a leveler, one or more sets of blades being secured on either side of the beam, the levelers being formed for adjustable attachment to the standards.

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

Figure 1 is a plan view of a pair of my improved attachments, one of the attachments being shown in partial section to disclose the construction of the parts. Fig. 2 is a sectional view taken on line *x x* of Fig. 1, and Fig. 3 is a rear view of a portion of the leveler and of one of the shovels.

The attachment forming the subject-matter of the present invention consists of a leveler, A, which is adjustably attached to the standards *a a* of an ordinary form of double cultivator, the attachments being arranged in pairs and substantially in the relative position shown in Fig. 1. The leading face of the leveler is countersunk at *b*, in order that the bolts used for clamping the attachments to the standard *a* may not project and catch upon weeds or other obstructions when the cultivator is in use.

In order that the attachments may be secured to the standards of cultivator-frames of varying construction, I provide the levelers with long slots *c*, through which the bolts *d d* are passed; and in order that the parts may be securely clamped together, I provide a clamping-plate, *e*, through which the bolts *d d* pass. The leveler A carries or is formed with as many upwardly-projecting brackets B B as there are shovels to be secured to the leveler, and to these brackets B there are pivotally-connected shovel-holders C C, connection being made by bolts, as *f*. The forwardly-projecting lower ends of the holder *c* are provided with sockets D D, within which there are fitted the shanks *h* of the shovels E, which shovels are held in place by set-screws *k k*.

In order that the shovels may be adjusted at any desired angle, I form the upper ends of the holders *c*, with a number of holes, *i i*, through which holes the break-pins *l l* are passed, the brackets B being provided with an overhanging hood, *n*, between which hood and the main portion of the bracket the upper ends of the holders are free to move, except when held by the break-pins.

From the construction described, it will be seen that by loosening the set-screws *k k* the shovels E E will be adjusted to any angle desired—that is, they may be adjusted so as to throw the earth to or from the crop that is being cultivated; and it will also be seen that the shovels may be adjusted so as to make a deep or shallow furrow. The depth of furrow may also be regulated by tilting the holder C, in which case the parts would be held in the position to which they have been moved by the break-pins *l*, it being understood that the break-pins in this case are passed through such of the holes *i i* in the top of the holders *c* as the necessities of the case require.

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

1. In a cultivator attachment, the combination, with a leveler, A, countersunk at *b*, and formed with slots *c*, of brackets B B, formed with hoods *n*, holders C, having sockets D, and being pivotally connected to the brackets B, and shovels E, formed with shanks *h*, and held in place by set-screws *k*, substantially as described.

2. In a cultivator attachment, the combination of the following elements, viz: leveler A, countersunk at *b*, and provided with slots *c*, brackets B, provided with hoods *n*, holders C, pivot-pin *f*, shovel E, formed with shank *h*, set-screw *k*, and a break-pin, *l*, substantially as described.

3. In a cultivator attachment, the combination of the following elements, viz: leveler A, bracket B, formed with hood *n*, holder C, formed with holes *i i*, and pivotally connected to the bracket, shovel E, formed with shank *h*, set-screw *k*, and break-pin *l*, substantially as described.

GEORGE W. CAMPBELL.

Witnesses:

JOHN H. GRIMES,
HORACE C. GRIMES.