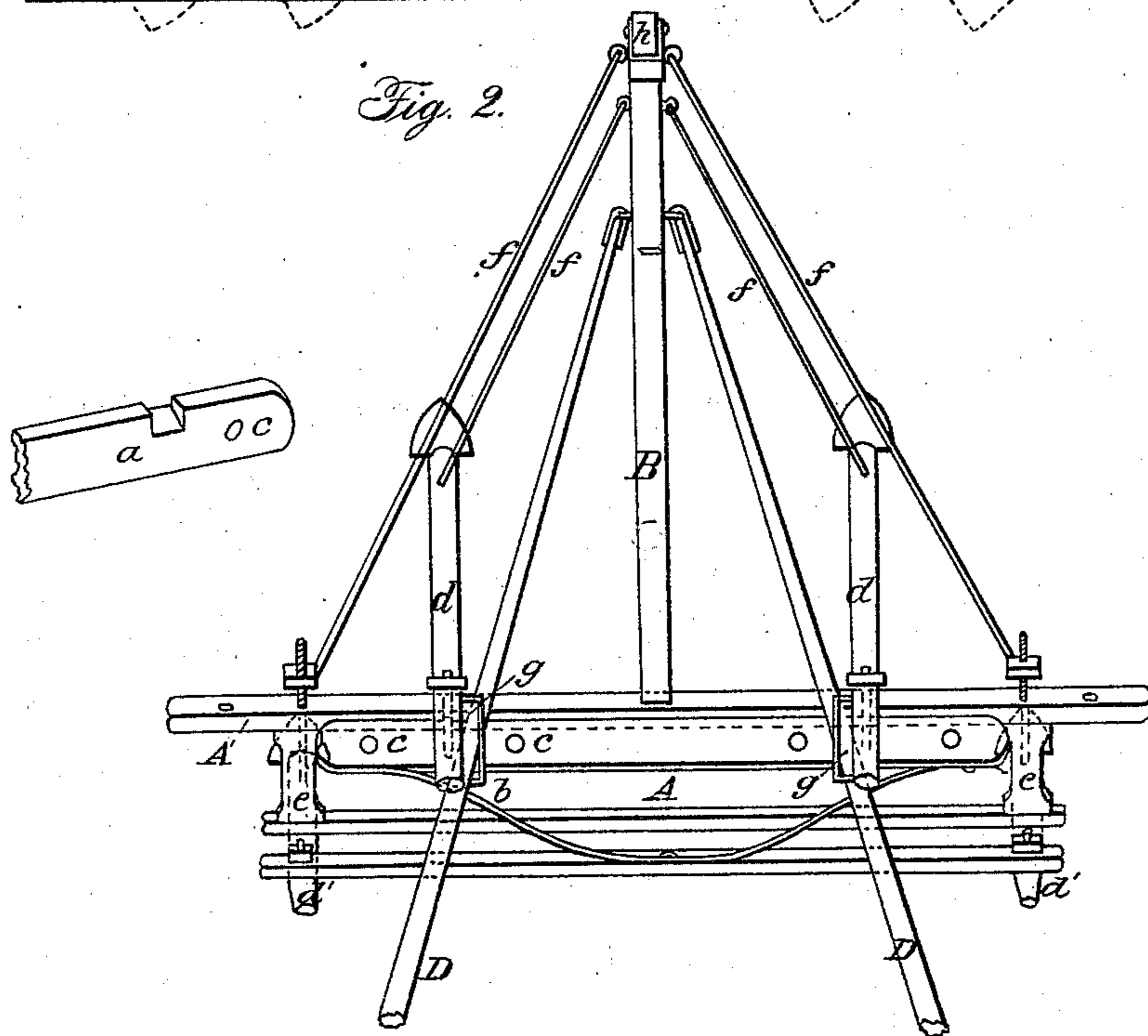
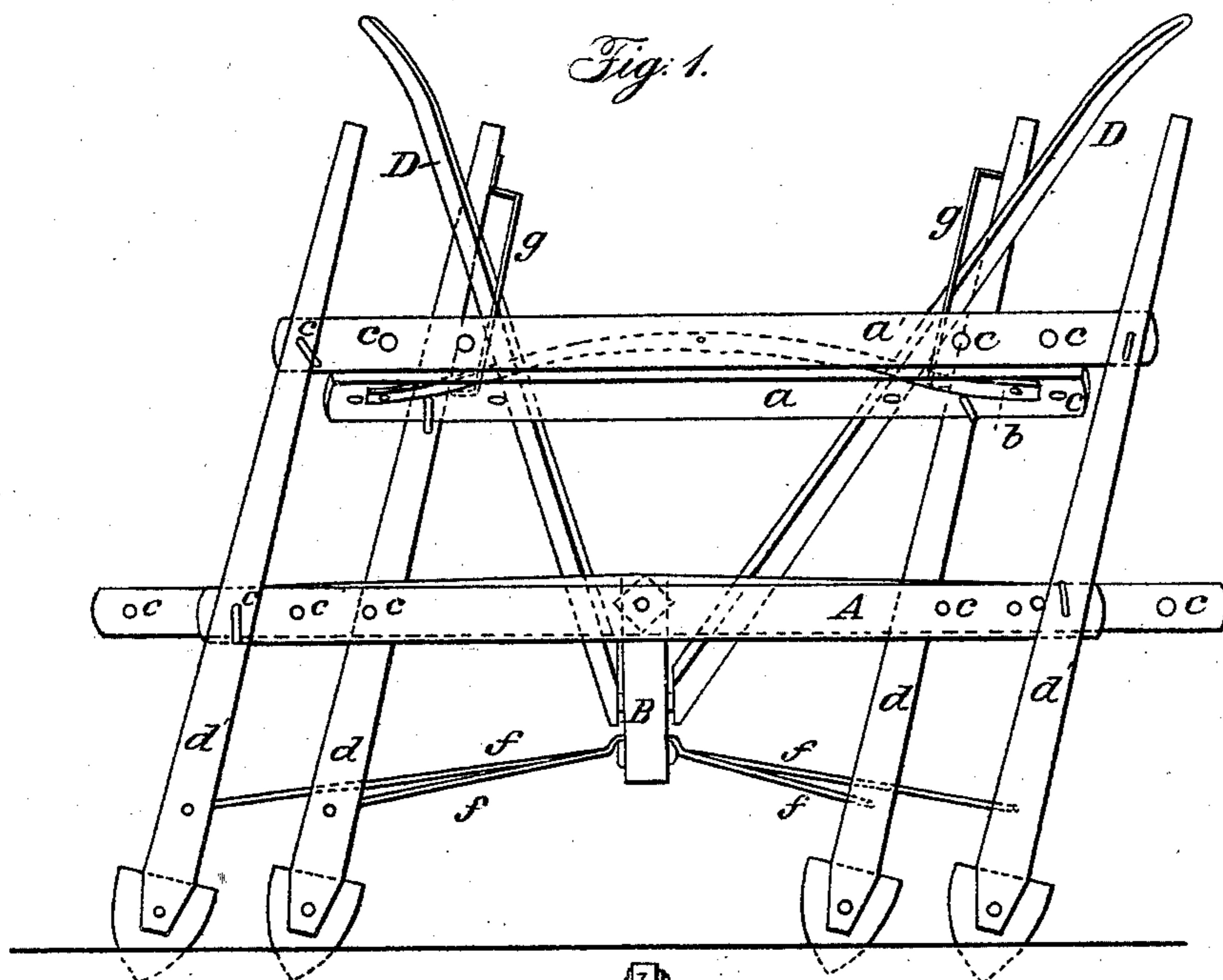


J. COOK.
Parallel-Cultivator.

No. 58,383.

Patented Oct. 2. 1866.



Witnesses:

M. Peck
Iowa Peck

Inventor:

James Cook
by his atty.
H. P. K. Peck

UNITED STATES PATENT OFFICE.

JAMES COOK, OF COLLINSVILLE, OHIO.

IMPROVEMENT IN CULTIVATORS.

Specification forming part of Letters Patent No. 58,383, dated October 2, 1866.

To all whom it may concern:

Be it known that I, JAMES COOK, of Collinsville, in Butler county, in the State of Ohio, have invented a new and useful Improvement in Corn-Plows; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Figure 1 of the drawings is a rear perspective view of my improved plow, and Fig. 2 is a top or plan view of the same.

My invention consists in the combination of two intermediate frames with four plow-standards, a beam and drag-bars, and adjustable handles, all connected by bolts and hinges loosely, and without either tenon or mortise, in such a manner as to constitute a flexible structure for the purpose and in the manner herein more fully described.

The upper frame, *a* and *a'*, connected together by the curved metal spring *b*, consists of two flat rails provided with series of holes *c c*, through which screw-bolts are passed to secure this frame to the upper portion of the plow-standards *d* and *d'*. The lower frame, *A*, is similar in construction to that already described, but the two rails are connected together by screw-bolts, which pass through them and the gage-blocks *e e*, and the two rear standards, *d'*. The two front plow-standards are connected to the front rail of the lower frame, *A*, by short screw-bolts, as represented, and both pairs of plow-standards may be adjusted toward or from each other by their respective screw-bolts, which will freely enter the holes *c c* in each of the rails of the frames.

The plow-beam *B* is connected with the front rail of the lower frame, *A*, by a fixed bolt and a nut, which forms a loose joint, which admits the beam to turn, or rather gives freedom of action to the frame *A* in a lateral direction.

fff are drag-bars connected by hooks and loops or staples to the sides of the front end of the plow-beam *B*, and extend backward and pass through the plow-standards some distance above the plows. The drag-bars may be provided with links or hooks to connect their rear ends to the standards, the object being to have these connections, like the others, flexible, to admit of free lateral motion to the

plow-standards, frames connecting them, and the plow-handles.

The plow-handles *D D* are connected to the sides of the plow-beam *B* by hooks and staples, and extend backward through metal loops connected to the inner sides of the plow-standards *d*. These loops *g* are of greater length than the width of the handles which pass through them, which provision allows the handles to be raised up out of the notches or gains cut in the front rail of the upper frame. These gains serve as stops, to limit the vibratory action of the standards *d* and *d'*.

The front or forward end of the plow-beam is furnished with a metal loop, *h*, provided with bolt-holes, and the plow-tongue may be inserted through this loop and attached to the top of the plow-beam by a hook and staple. The loop *h*, with a bolt to pass through the holes therein above the tongue, will serve to adjust the depth the plows shall run in the earth.

All of the screw-bolts which connect the intermediate frames with the plow-standards are less in diameter than the holes through which they pass, for the reason that a degree of flexibility is attained thereby.

The curved flat metal spring *b* is pivoted to the rear and front rails of the upper frame, which admits of free action, and forms a yielding connection between the bars or rails of the upper frame.

It will be observed that the standards with the shovel-plows may be readily detached and others substituted in their place, furnished with the bar-share plows.

In using my plow for furrowing out for corn two of the plows may be detached, and the others adjusted a proper distance apart.

In operation, for plowing corn, the flexible and yielding connections will permit the attendant to oscillate the tops of the standards laterally in either direction, the gains into which the handles fall and rest serving to limit the extent of the motion; and by this means the plows may be guided so as to move the earth in close contact with the corn-hills when the corn-rows are not straight. This capability greatly facilitates the operation of guiding the plows and the freedom of the joints and connections, together with the

spring *b*, which serves to retract the backward action of the plows caused by any obstacles which they may meet, will give great advantages to this structure.

Having fully described my invention and the manner of using it, what I claim, and desire to secure by Letters Patent, is—

1. The intermediate frames, *A* and *a a'*, constructed in the manner described, in combination with the standards *d* and *d'*, beam *B*, and drag-bars *f*, arranged, connected, and operating in the manner and for the purpose specified.

2. The upper frame, *a a'*, and spring-connection *b*, in combination with the plow-handles and notches or gains, to limit the oscillating motion of the plows, in the manner and for the purpose substantially as described.

Witness my hand this 5th day of July, 1866.

JAMES COOK.

Witnesses:

H. P. K. PECK,

A. L. PECK.