(No Model.)

M. SATTLEY.

CULTIVATOR.

No. 451,527. Patented May 5, 1891.

Fig. 3.

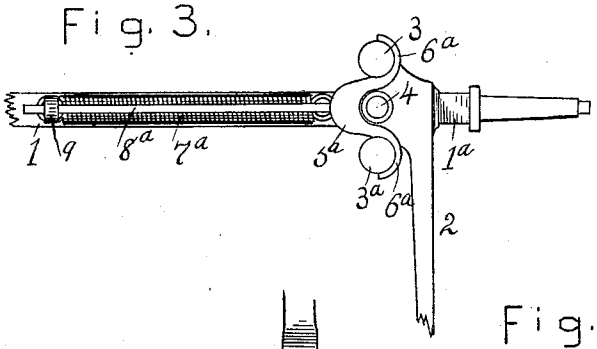
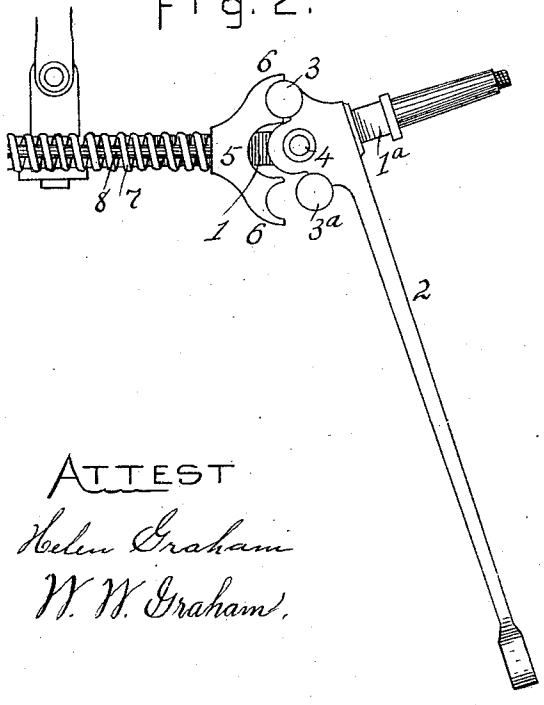


Fig. 1.

Fig. 2.



ATTEST

Helen Graham

W. W. Graham.

INVENTOR

MARSHALL SATTLEY

By his attorney

L. P. Graham

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

MARSHALL SATTLEY, OF SPRINGFIELD, ILLINOIS.

CULTIVATOR.

SPECIFICATION forming part of Letters Patent No. 451,527, dated May 5, 1891.

Application filed August 15, 1890. Serial No. 362,057. (No model.)

To all whom it may concern:

Be it known that I, MARSHALL SATTLEY, of Springfield, in the county of Sangamon and State of Illinois, have invented certain new and useful Improvements in Cultivators, of which the following is a specification.

This invention relates to tongueless cultivators; and its object is to provide a spring-joint axle that will maintain accurate alignment and a considerable degree of rigidity when not in use and still conform readily to changes in the direction of the motion of the team.

In the drawings accompanying and forming a part of this specification, Figure 1 is a plan of a spring-joint, showing the parts in alignment. Fig. 2 is a similar plan showing the spindle-bearing portion turned aside, and Fig. 3 represents a modification whereby an expansion instead of a compression spring is used.

The axle 1 is of the ordinary or any desirable construction, and it has the spindle-bearing portion 1^a, hinged vertically at 4. The draft-bar 2 is connected rigidly with 1, and it has the bosses 3 and 3^a, one on each side of the hinge-joint. The block 5 has bearings 6 6, adapted to the bosses 3 3^a, and it has the rod 8, that extends over axle 1 and through a hole in the lug or plate 9, which lug or plate is secured to the axle and forms a guide for the rod, while permitting it to move longitudinally. The spring 7 is placed on the rod 8 between the plate 9 and the block 5, and it tends to hold the draft-bar and wheel at right angles with the axle by exerting pressure equally on each boss.

In the modification shown in Fig. 3 the block 5 has the hooks 6^a 6^a, that engage the bosses of the draft-bar. The rod 8^a extends through lug 9, and the expansion-spring 7^a is connected with the lug and with the block or rod. The spring may be so adjusted as to exert pressure on the bosses at all times, thereby giving the axle sufficient stability to enable the cultivator to be moved about in the store-room or otherwhere without danger of tumbling down or cramping, and its force may at the same time be so regulated as to make the wheel sufficiently sensitive to the changes of direction in the motion of the team.

I claim—

1. An axle for cultivators, having the spindle-bearing part connected with the central part by a vertical hinge, bosses or bearings on one part on opposite sides of the hinge, and a spring on the other part exerting its force lengthwise of the part and equally on both bearings, whereby the parts are held yieldingly in line one with the other, as set forth.

2. In cultivators, in combination, axle 1, spindle bearing part 1^a, hinged at 4, draft-bar 2, rigidly secured to the spindle-bearing portion, bosses 3 3^a on the draft-bar, block 5, bearing against the bosses and having the guide-rod extended lengthwise of the axle, and the spring exerting pressure on the bosses through the block, as set forth.

In testimony whereof I sign my name in the presence of two subscribing witnesses.

MARSHALL SATTLEY.

Attest:

PASCAL E. HATCH,

CLINTON L. CONKLING.