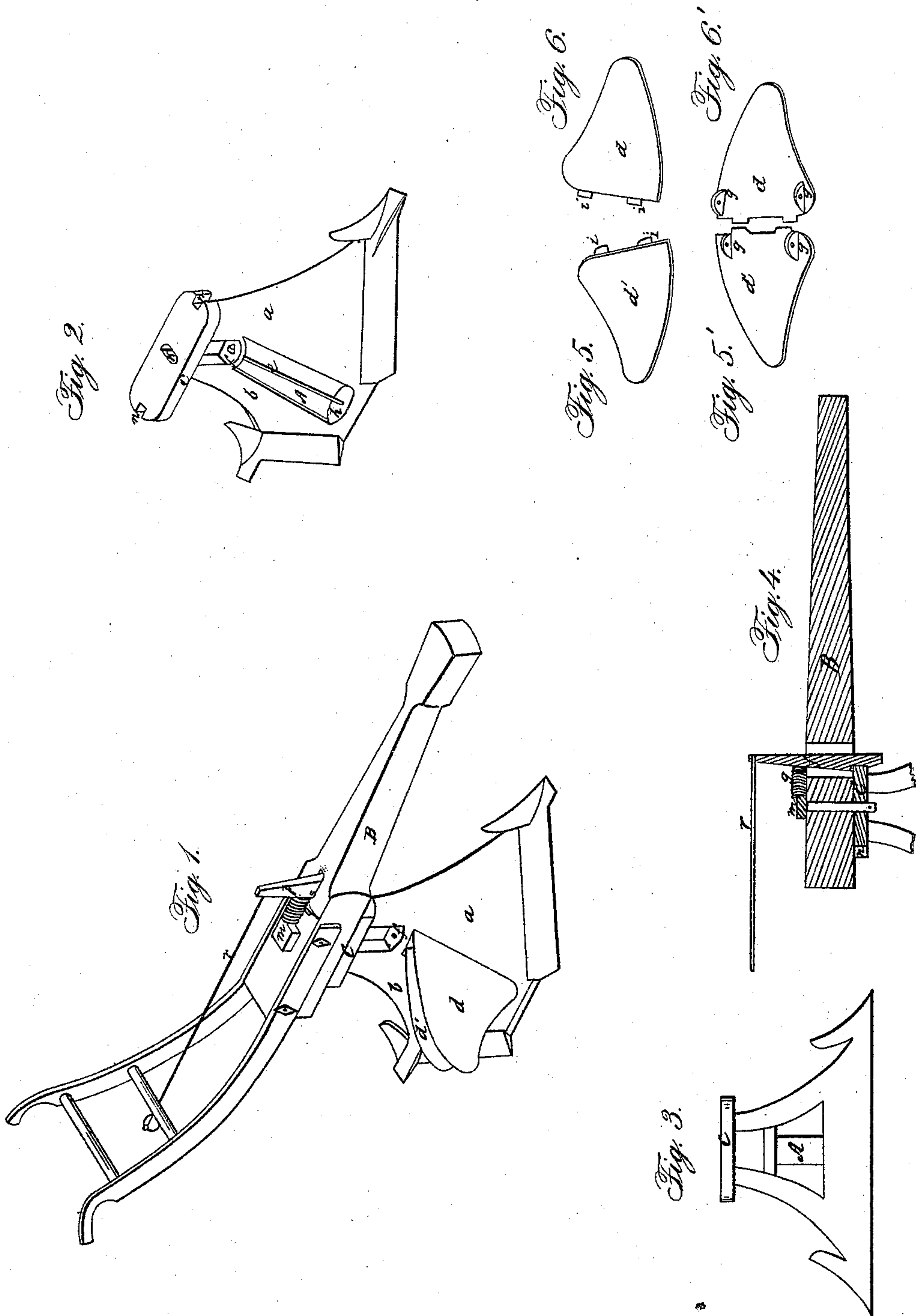


J. TRUMP.  
Side-Hill Plow.

No. 4,186.

Patented Sept. 9, 1845.



# UNITED STATES PATENT OFFICE.

JOSEPH TRUMP, OF CONNELLSVILLE, PENNSYLVANIA.

## IMPROVEMENT IN HILLSIDE-PLOWS.

Specification forming part of Letters Patent No. 4,186, dated September 9, 1845.

*To all whom it may concern:*

Be it known that I, JOSEPH TRUMP, of Connellsville, in the county of Fayette and State of Pennsylvania, have invented a new and Improved Hillside-Plow; and I do hereby declare the following to be a full and exact description of the same, reference being had to the accompanying drawings, making a part of this specification.

The nature of my invention consists in connecting a right and left hand plow of the usual form together, back to back, and attaching them to a beam in such a manner that by the disengaging of a spring latch or ratchet the beam is freed from its confinement and is carried around by the team, shifting it from one plow to the other, and resetting and adjusting itself the instant it reaches its proper position for operating the other plow. By my improved plow an entire field can be plowed and every furrow turned in the same direction without the plowed furrows being trampled upon with less labor than the usual process by plowing around a field.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

In the accompanying drawings, Figure 1 is a perspective elevation of my entire plow. Fig. 2 is a perspective elevation of the share side thereof, with the beam and shifting continuation mold-boards detached. Fig. 3 is an elevation of the landside of my plow detached from the beam. Fig. 4 is a vertical longitudinal section of the beam, ratchet, bolt, connecting-cap, &c.; and Figs. 5 and 6 are representations of the front and back sides of the shifting mold-boards.

The right and left hand plows, *a* and *b*, may be constructed in any known or usual manner, their backs secured firmly to each other, and their posts or uprights securely fastened to an oblong cap-piece, *c*, at the top. Midway between the two plows—dividing the permanent portion of the mold-boards of each—there descends an oblong opening, *A*, having the connections *f* and *h* at its top and bottom. Into the opening *A* the shifting mold-boards *d d* are secured, back to back, by a bolt, *e*, passing through the connecting-piece *f*, (at the top of the opening *A*,) and in descending passing through the holes in the projections *g g*

on the back of each mold-board, and entering into and secured to the connecting cross-piece *h*. The shifting mold-boards *d d* turn freely upon the bolt *e*, and their inner edges, upon which the shoulders *i i* are placed, coincide exactly with the sides of the oblong opening *A*, thereby forming a continuation of the permanent portion of the mold-boards of each plow. When the beam *B* is shifted from one plow to the other the shifting mold-boards *d d* fall back into their proper position by the action of the earth against them. They are retained in this position by the ears *i i*, projecting from the inner rear side of each shifting mold-board, which pass under the edge of the permanent portion of the mold-board of each plow, and acting against the bolt *e* retain the edges of the permanent and shifting mold-boards together and their sides at a uniform and proper angle of inclination.

The connection cap-piece *c* has an oblong cross-opening, *k*, in its center, through which a strong bolt, *m*, descending through the beam *B*, passes, and secures the cap-piece *c*, and the double plows attached to the same, to the beam. There are notches *n n* in each end of the cap-piece *c*, into which the spring-ratchet *P* is pressed by the spring *q*, which permanently secures the cap-piece *c* in its proper position parallel with the beam of the plow. The ends of the connection cap-piece *c* are rounded off on each side of the notches *n n*, for the purpose of enabling the ratchet or spring-latch *P* to pass into the notches *n n* when the beam of the plow is carried around.

The object of making the opening *k* of an oblong form is for the changing the position of the plow and beam and adapting it to plowing a wide or narrow furrow, which is effected by changing the position of the bolt *m* to either end or the middle of the spring *k* by bushing upon one or both its sides. The lower end of the ratchet *P* has a shoulder projecting under the cap *c* for the purpose of more firmly securing it and preventing its springing. The ratchet *P* works on a pin at its center, and there is a cord or wire, *r*, carried from the top of the same to the handles of the plow, by pulling which the holder of the plow, when he reaches the end of his furrow, detaches the ratchet, and the team in coming around turn around the beam of the plow to its proper place



for plowing a return-furrow, the plow remaining stationary, the spring-ratchet catching and retaining the beam in its proper position the instant it reaches it. The plow-holder has then only to move the point of his return-plow the width of a furrow and the plow is ready for returning back upon the side of the furrow it has just plowed and making a return-furrow in the same direction of the first.

The spiral spring *q* is placed between the bolt-head *m* and the ratchet *P*.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The manner of connecting the right and

left hand plows, *a* and *b*, to the beam by means of the cap-piece *c*, the bolt *m*, oblong opening *k*, self-acting spring-latch *P*, and notches *n n*, all combined and operating substantially in the manner and for the purpose herein set forth.

2. The combination of the detaching-cord *r*, latch *P*, spring *q*, cap-piece *c*, and notches *n n*, arranged and operating substantially as herein set forth.

JOSEPH TRUMP.

Witnesses:

Z. C. ROBBINS,

T. C. DONN.