H. & H. L. WELLS.

LIFTING-LEVER FOR HARVESTERS, &c.

No. 191,087. Patented May 22, 1877.

Fig. 1.

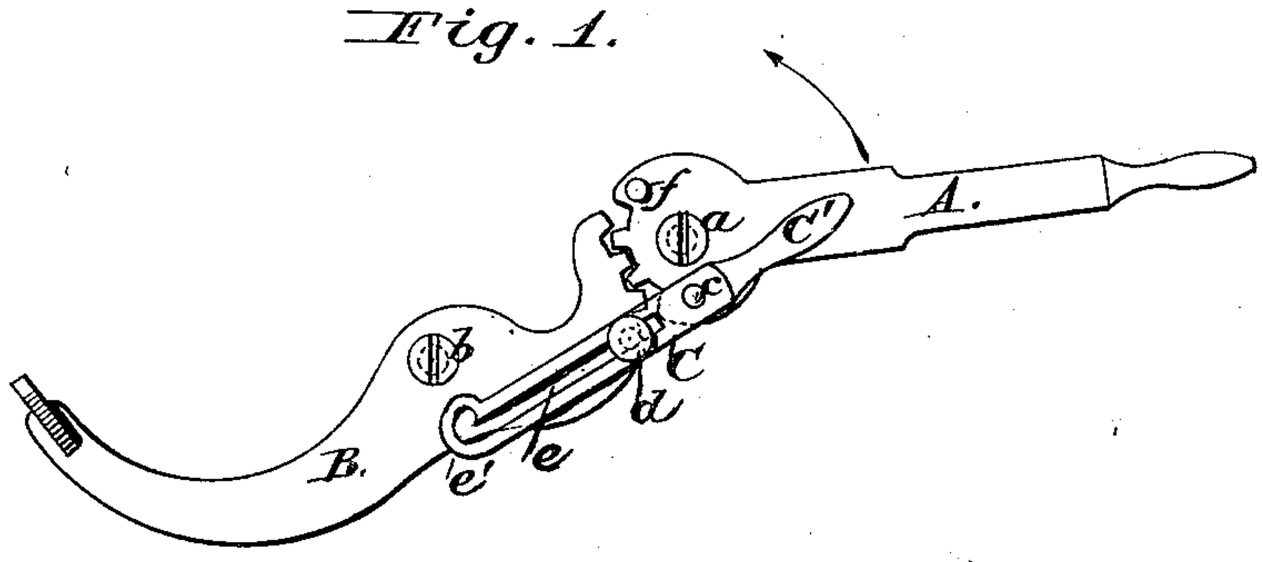


Fig. 2.

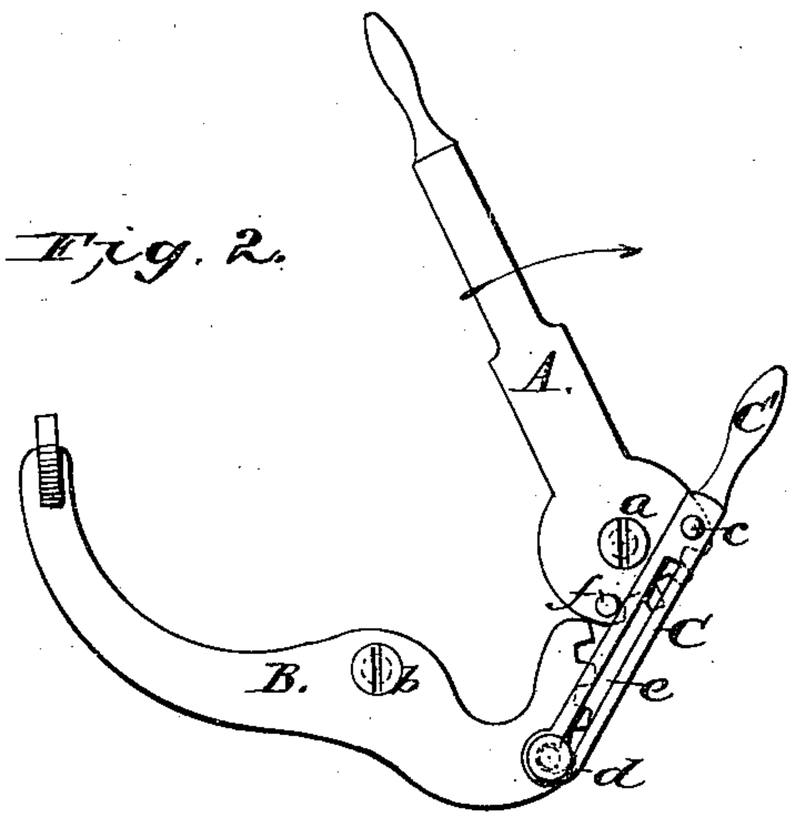


Fig. 3.

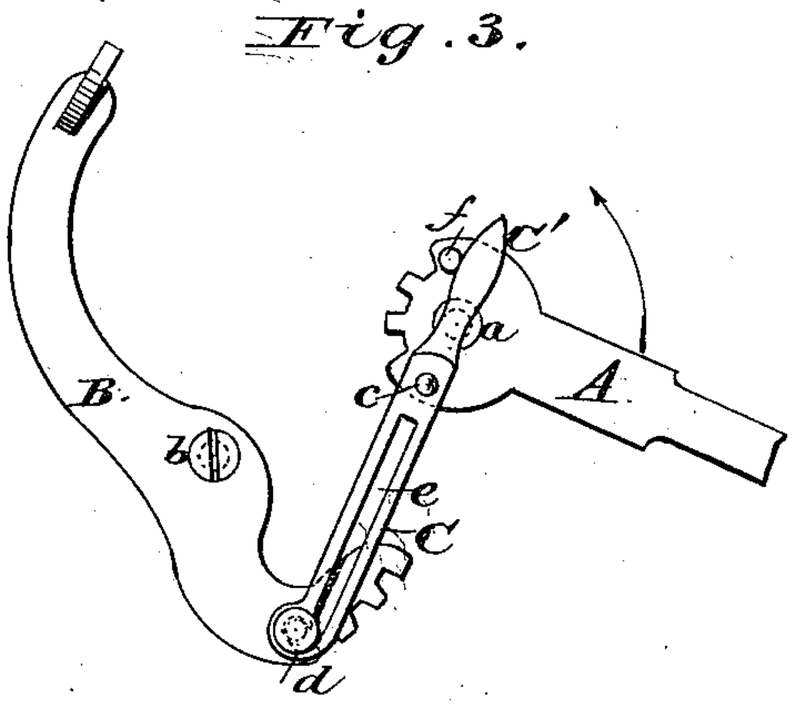
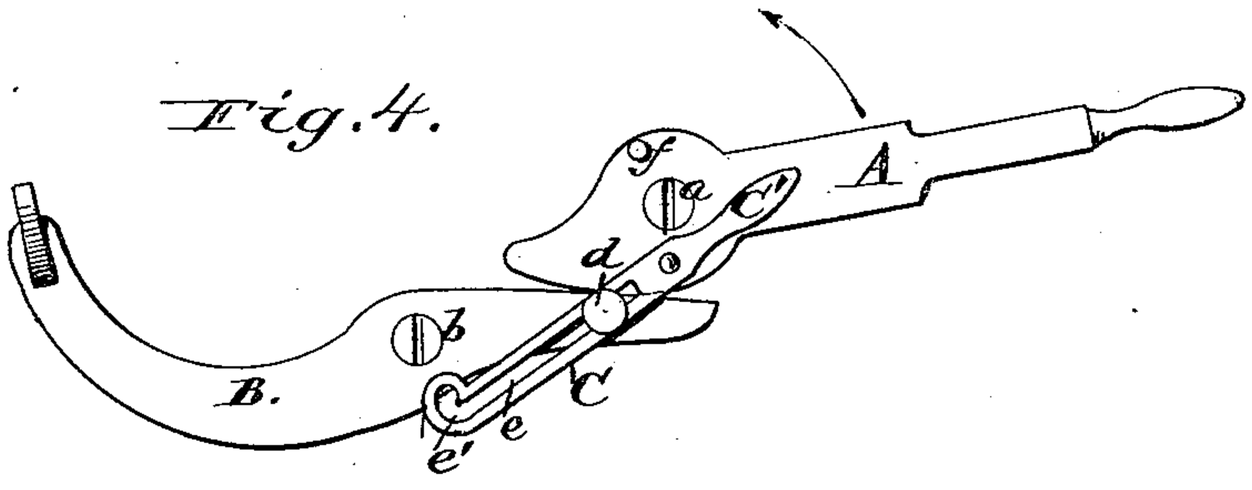


Fig. 4.



Harrison Wells.
H. Levanson Wells.

Inventors.

Attest:
H. L. Perrine
Wm. A. Rich

By A. J. Wells
Attorney.

UNITED STATES PATENT OFFICE.

HARRISON WELLS AND H. LEVANSON WELLS, OF MANCHESTER, IOWA,
ASSIGNORS TO HARVEY L. HOPKINS, OF SAME PLACE.

IMPROVEMENT IN LIFTING-LEVERS FOR HARVESTERS, &c.

Specification forming part of Letters Patent No. **191,087**, dated May 22, 1877; application filed April 24, 1877.

To all whom it may concern:

Be it known that we, HARRISON WELLS and H. LEVANSON WELLS, of Manchester, in the county of Delaware and State of Iowa, have invented a new and useful Improvement in Lifting-Levers for Harvesters, and for general purposes, of which the following is a full, clear, and exact description.

The object of our invention is to raise an object to a greater height than can be done with one ordinary sweep of a lever, and it is especially adapted for raising the cutting apparatus of harvesting-machines to pass high obstructions, and for transportation.

The invention consists in the combination, with two levers acting on each other, of a link permanently pivoted to one, at a point some distance from the fulcrum, and adapted to engage the other when the sweep of the one to which the power is applied is about being completed, so that the return stroke of the latter will continue the lifting action of the lever carrying the weight.

In the annexed drawing, Figures 1, 2, and 3 are side elevations of our invention, showing the levers in different positions. Fig. 4 illustrates a modification.

The same letters of reference indicate like parts in all the figures.

The levers A and B are fulcrumed, respectively, at *a* and *b*, so that their short arms act on each other, either through gear-teeth, as shown in Figs. 1, 2, and 3, or directly, as shown in Fig. 4. The power is applied to lever A, and lever B lifts the weight. In the example illustrated the link C is permanently pivoted to lever A at *c*, a point some distance from its fulcrum. That portion of the link reaching past lever B is slotted to play on a fixed stud, *d*, thereon, the head of which holds the link in position, and which is located some distance from the fulcrum *b*. The extreme outer end of the slot *e* terminates in a return curve, *e'*, adapted to engage stud *d*. A stud, *f*, on lever A is so disposed that, just before the stroke of the lever in the upward direction (in this instance) is completed, and at the time when stud *d* and return curve *e'* of slot *e* arrive opposite to each other, it will force the link over, so that the stud *d* will become engaged in return curve *e'* of slot *e*, locking the link to lever B. The link now acts as a connecting-rod, and with its pivots *c* and *d* properly disposed with the fulcra *a* and *b*, as shown, for instance, the return or downward stroke of lever A will cause the link to continue turning lever B in the same direction in which it turned on the upward stroke of lever A. Thus a weight may be lifted to a considerable height by a forward and return stroke of lever A.

It will be observed that when the parts assume the position shown in Fig. 2, the pin *f* prevents the lever A from being turned forward any farther, and that lever B is really locked. This locking of lever B also occurs when it has lifted the weight to the extreme height, for then the points *d c a* arrange themselves in line, and in addition thereto the handle C' of the link C brings up against pin *f*. In lowering the weight from the extreme height, the link should not be unlocked from stud *d* until the parts assume the position shown in Fig. 2.

The construction and arrangement of the parts shown are susceptible of modifications, and we do not therefore, primarily, confine ourselves thereto.

Thus the pin *f* might be dispensed with, and the link locked onto lever B by hand.

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

1. The combination, substantially as specified, of two levers acting on each other, and a link permanently and eccentrically pivoted to one of the levers and adapted to engage the other eccentrically also.

2. The combination, substantially as specified, of lever A, provided with stud *f*, lever B carrying stud *d*, and the slotted link C *e e'*, pivoted to lever A.

HARRISON WELLS.
H. LEVANSON WELLS.

Witnesses:
SALUS G. VAN ANDA,
GEORGE FINCH.