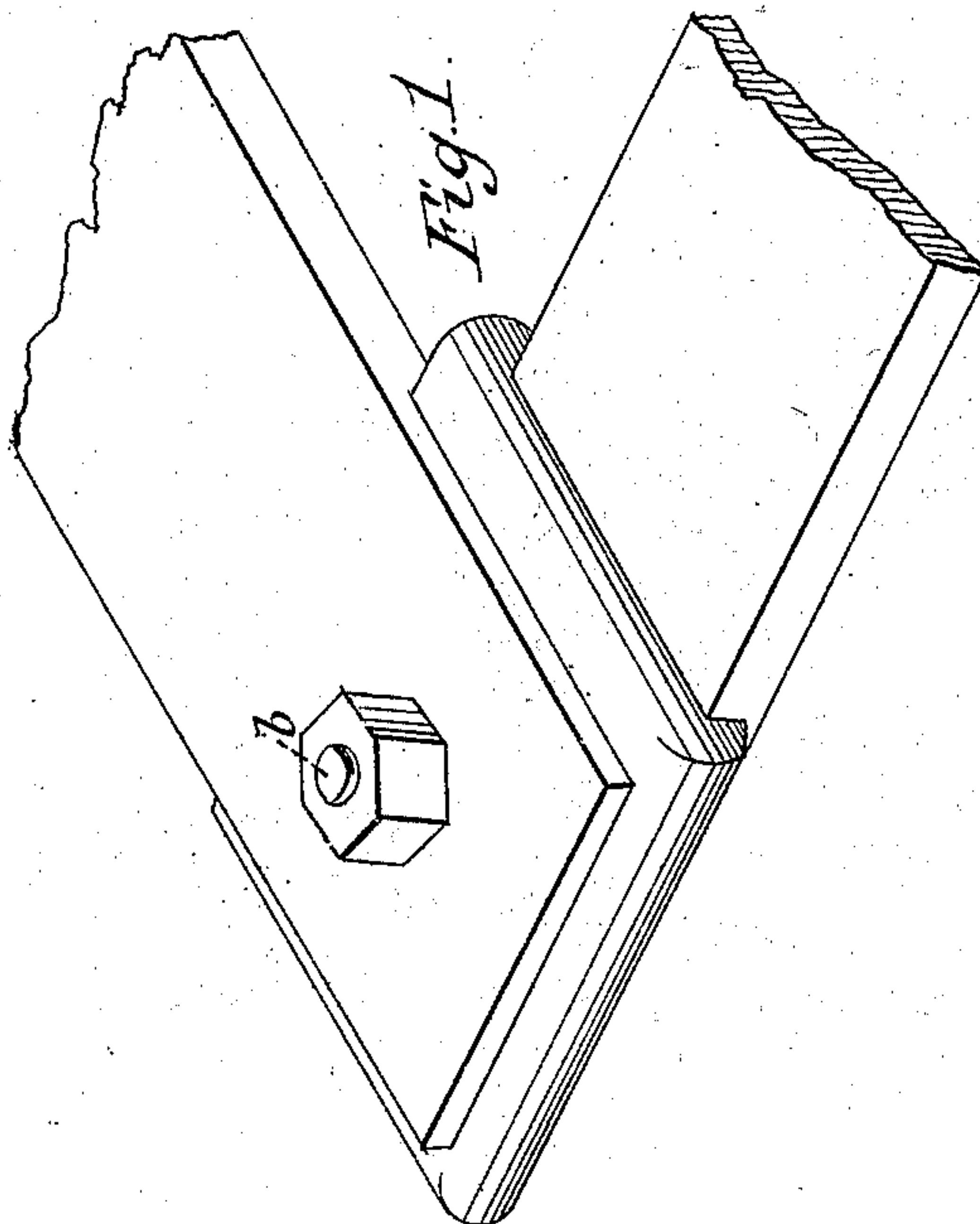
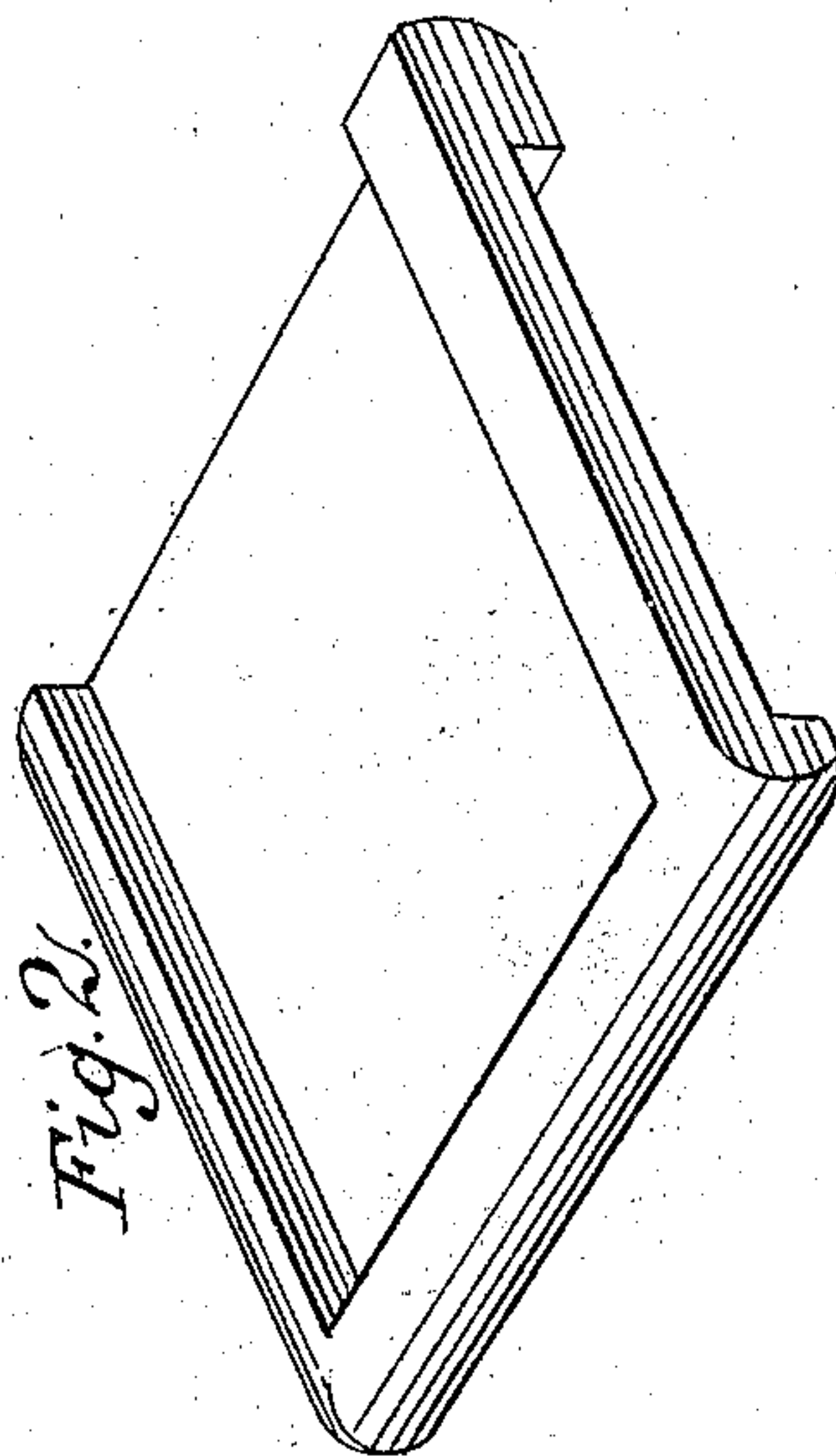


M. G. HUBBARD.
Harvester Frame.

No. 17,151.

Patented April 28, 1857.



M. G. Hubbard.

UNITED STATES PATENT OFFICE.

M. G. HUBBARD, OF PENN YAN, NEW YORK.

IMPROVEMENT IN HARVESTER-FRAMES.

Specification forming part of Letters Patent No. **17,151**, dated April 28, 1857.

To all whom it may concern:

Be it known that I, M. GILBERT HUBBARD, of Penn Yan, Yates county, New York, have invented certain new and useful Improvements in Frames for Harvesters, &c.; and I do hereby declare the following to be a full and exact description thereof, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of a joint of the frame, and Fig. 2 is a view of the lock-plate detached.

My improvement consists in making wrought-iron frames for reapers, mowing-machines, &c., in such a manner that the frame may be cheaply and conveniently put together or taken apart, the corners being so united by peculiar ribbed lock-plates that one bolt in each corner will hold the frame firmly in all directions.

To construct my frame I cut two wrought-iron bars of such length as I wish to make the frame, and two similar bars of such length as I wish for the width of the frame, and punch or drill a hole in each end of the bars, then place one of the ribbed lock-plates at each corner, between the end and side pieces, and secure it with one bolt, as clearly seen at *b* in the drawings, Fig. 1. The ribbed lock-plates are cast in the form (or similar to it) shown at Fig. 2. It has been found difficult heretofore to construct these frames of sufficient strength and durability without making them too heavy or too expensive. They have generally been made of cast-iron or wood; but cast-iron is lia-

ble to break, and requires much more weight to get the requisite amount of strength, and wood is too liable to shrink and swell and warp. It is therefore evident that wrought-iron is better adapted to this purpose, if it can be employed without incurring too great expense.

I am aware that wrought-iron for these frames is not new; but all of the wrought-iron frames that I have seen have been either halved together and bolted at the corners or otherwise imperfectly secured, or else they were bent around and welded, either of which is more expensive than my plan above described. By constructing a frame of wrought-iron bars united at the corners in the manner described I find that I can make the frame for my harvesters actually cheaper than to fit up a cast-iron frame, and its superiority is evident, as it is lighter and far less liable to break than a cast-iron frame, and it is far more permanent and durable than wood.

Having thus described my improved frame, what I claim therein as new, and desire to secure by Letters Patent, is—

Joining the parts of the frame, substantially as herein described, by means of the lock-plates or arms and bolts, so as to make a firm and rigid union between the parts at a small cost, as herein fully set forth.

M. G. HUBBARD.

Witnesses:

J. J. GREENOUGH,
A. P. JONES.