

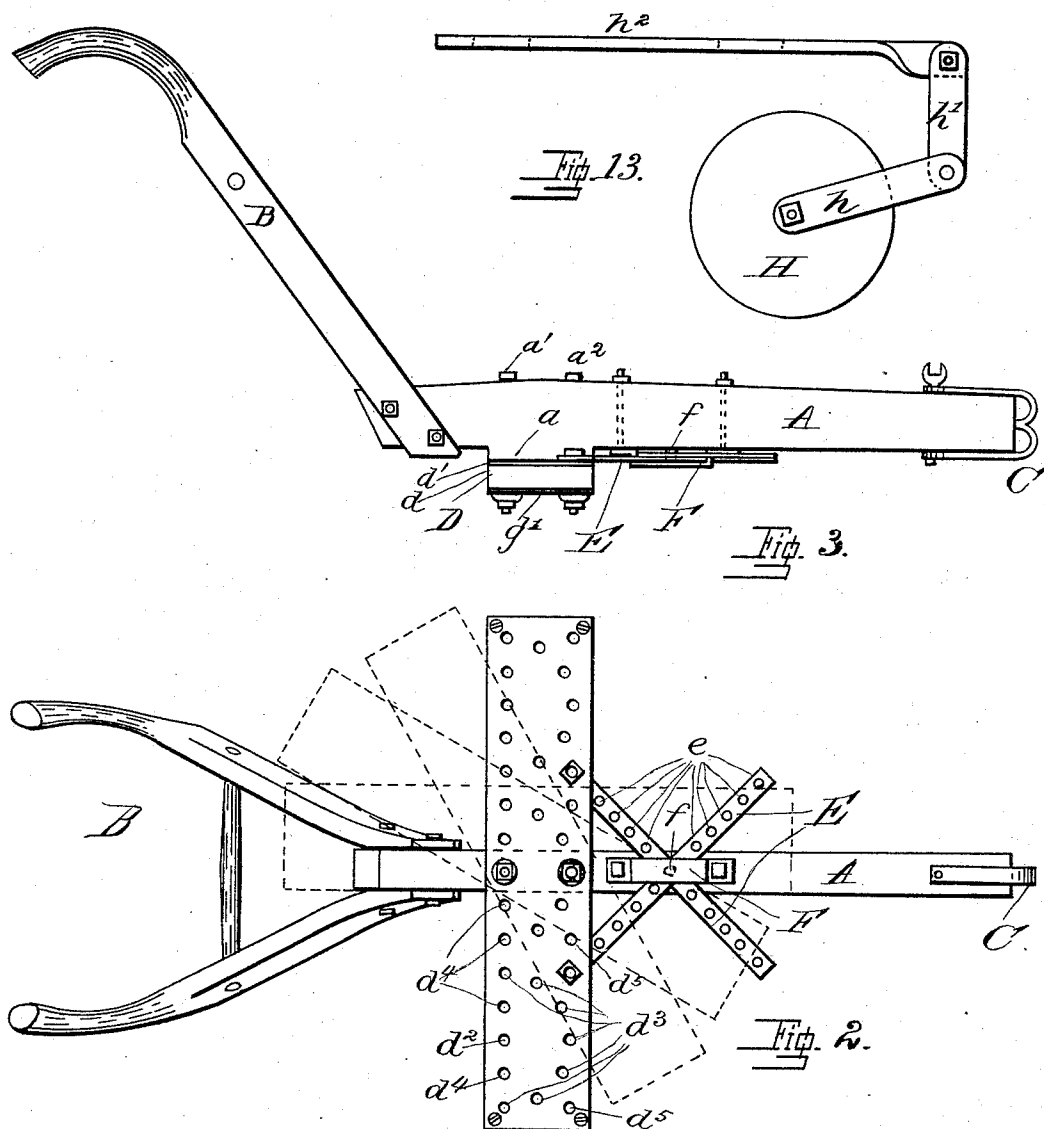
(No Model.)

3 Sheets—Sheet 2.

M. HERZBERG.
COMBINATION IMPLEMENT.

No. 474,012.

Patented May 3, 1892.



Witnesses
L. P. Hayden
S. M. Wood.

Inventor
Morris Herzberg
By his Attorneys
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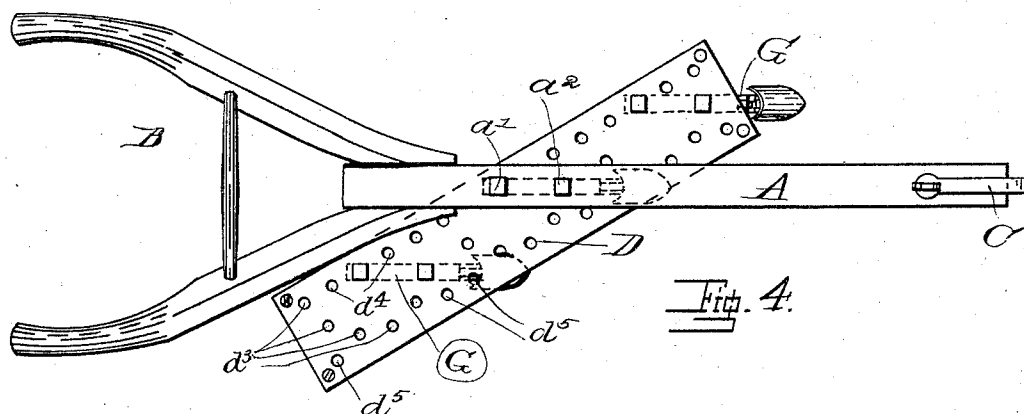
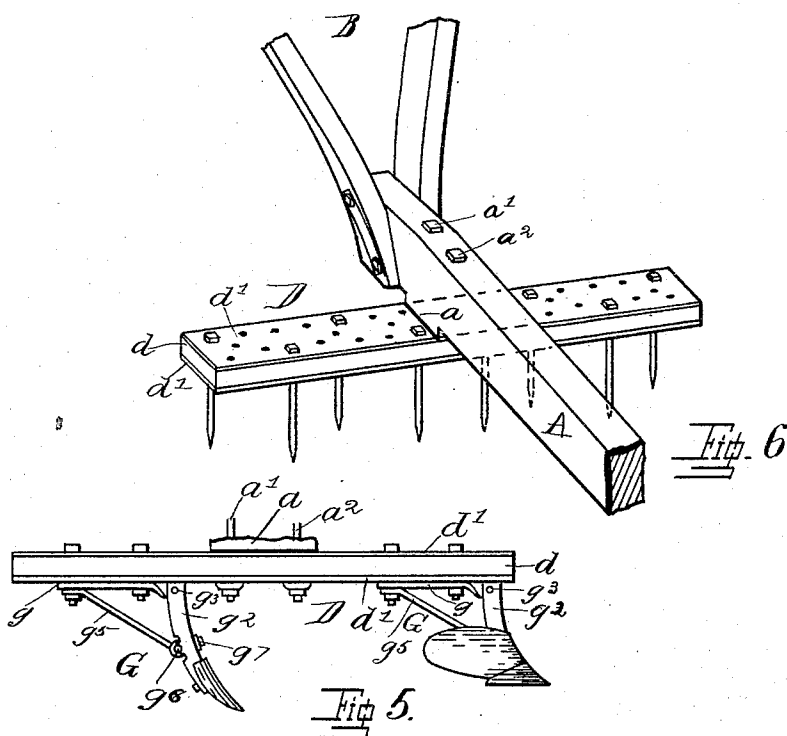
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UNITED STATES PATENT OFFICE.

MORRIS HERZBERG, OF CHAMBERS COUNTY, ALABAMA.

COMBINATION IMPLEMENT.

SPECIFICATION forming part of Letters Patent No. 474,012, dated May 3, 1892.

Application filed June 16, 1891. Serial No. 396,492. (No model.)

To all whom it may concern:

Be it known that I, MORRIS HERZBERG, of Chambers county, Alabama, have invented certain new and useful Improvements in Combination Implements; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this invention.

This invention relates to tillage implements and to such devices as are known as "combination implements," by reason of their adaptability to several different operations in agriculture, the object of this present invention being the improvement of the construction of such a device to render it facile and varied in its adjustments and inexpensive and durable of construction, the details of all of which will be hereinafter fully specified.

In the accompanying drawings, Figure 1 is a perspective view of the device, showing the supplemental beam and some other of the details, the adjusting-braces being omitted for sake of clearness. Fig. 2 is an inverted plan view of the device, showing the supplemental beam in its right-angled adjustment, and also showing the adjusting-braces and the bracket therefor. Fig. 3 is a side elevation of the device, as shown in Fig. 2. Fig. 4 is a plan of the device, showing one of the positions of the supplemental beam and showing standards secured thereto so as to form a three-foot cultivator. Fig. 5 is a side elevation of the supplemental beam set parallel to the beam and being arranged for subsoiling. Fig. 6 is a perspective view of the device arranged as a harrow. Fig. 7 is a side elevation of the standard, showing its adjustment. Fig. 8 is a back view, and Fig. 9 is a plan, each showing the details of the standard. Fig. 10 is a perspective view of the plate employed for holding the handle-bolts stationary. Fig. 11 is a perspective view of the adjusting-brace-securing bracket. Fig. 12 is a side elevation of said bracket attached to the beam of a plow. Fig. 13 is a side elevation of a fender device.

In the figures corresponding elements are uniformly designated by like reference-marks.

The beam A, handles B, and clevis C may be of any ordinary construction with the exception that on the under side of the beam, at about the position usually occupied by the standard, a lug or downward projection *a* is provided, through which and the beam proper are bored two vertical holes for bolts *a'* *a''*, by means of which the supplementary beam D is pivoted and secured to the beam. At times when the strain on the supplementary beam renders the two bolts insufficient for securing it in a stationary position relative to the beam A braces, hereinafter to be described, are employed. The supplementary beam D consists of a central wooden plate *d*, upon each side of which, top and bottom, are secured metallic plates *d'*, being secured thereto in any desired manner. Drilled vertically through this supplementary beam are three series or sets of holes, each set consisting of a central hole *d''*, Fig. 2, around which are arranged in semicircular form, equidistant from said central hole, other holes *d'''*. Along the back edge of the plate are arranged other holes *d''''* substantially in line and including the holes *d''* and the extreme end holes of the semicircular line. These holes *d''''* are equidistant one from the other, their distance being preferably such that the distance between two holes, skipping one intermediate hole in the same series, would be the same as the radial distance of the holes *d'''* from the central hole *d''*, corresponding with that semicircular series. By reason of this any implement which is attachable to the central hole and semicircular holes will also be adapted to be attached to this series of holes *d''''*. It is also desirable for the same reason that the distance between two holes *d'''*, skipping an intermediate one, should be the same as their radial distance from one of the holes *d''*. Holes *d''''* may be also arranged along the front edge of the supplementary beam at the above-specified distance and the corresponding one of the holes *d''''*.

Adjusting-braces E, consisting of straight bars perforated at intervals throughout their length, are pivoted, preferably, in one of the holes *d'''* each side of the beam, although obviously any of the holes in the supplementary

beam may be utilized for this purpose. These braces cross under the beam, and a bracket F, having a lug f , which may be caused to enter any of the holes e , is secured to the beam in such a position that said holes e and lug f may properly coincide. This construction gives very quick adjustment to the supplementary beam. These braces are to be employed in ordinary adjustment; but when the supplementary beam stands parallel to the beam A or a slight variation from parallel said braces will not be required, although they may of course be used if it is thought best. It is obvious that by use of the various holes adaptable for connection of the braces E to the supplementary beam and the holes in said braces a great versatility of adjustment is obtained.

The standard or foot G is composed of a base-piece g , provided with holes g' , the standard proper g^2 , which is formed, in the usual manner, of a loop of metal having parallel sides at a short distance apart, is curved slightly forward, and is pivoted to the base-piece g by means of a rivet g^3 . Notches g^4 are provided in the back of the standard g^2 . The brace g^5 is secured to the base-piece g and has on its other end a cross-piece g^6 , which engages with the notches g^4 . An eyebolt g^7 holds the said cross-bar and notches in engagement, the eye of said bolt being passed over the said cross-bar and the bolt passed through between the sides of the standard g^2 and a nut and washer being screwed thereon. It is thus obvious that the said standard is adjustable positively as to angle to the supplementary beam. If desired, the share may be secured to the standard by this bolt, and obviously movement of the share relatively to the standard accidentally would be impossible, as the engagement of the cross-bar and notch would prevent the bolt from moving.

The fender, as shown in Fig. 13, consists of a circular plate H, carried on an arm h , pivoted loosely on a pendent arm h' , which is adjustably secured to a base h^2 , similar to the base g of the standard, the only difference being that said base h^2 is longer, and slots are provided, whereby it may be adjusted to bring it alongside any desired standard when such combination is desired or necessary for the performance of any agricultural operation.

As ordinarily constructed the bolts which secure the handles to the beam, the same be-

ing subjected to quite severe strains in operation, work loose in their holes, causing a considerable uncertainty in the operation of the plow. In order that these bolts may be tightened when desired, I have devised a plate I, (best shown in Figs. 1 and 10,) through which the bolts are first inserted and in which the square bodies thereof will fit and prevent their turning when the wrench is applied to the nuts in tightening.

The drawings show incidentally a number of adaptations to which this device may be applied, and a consideration of the construction will readily show that almost numberless combinations might be made, each of which would facilitate the performance of some particular operation.

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

1. In a device of the class specified, the beam of a plow, a supplementary beam pivoted thereto, having several series of holes therein, each series arranged in a semicircle around a center hole near the edge of same and a series of holes in line with said center holes, forming in connection with said center holes a series the center holes of which are half the distance apart as the holes of the circular series are from their center holes, and a standard having a case thereon provided with two holes adapted to register with any two alternating holes of the straight series or with a center hole and one of the corresponding semicircular series, all combined, arranged, and operating substantially as and for the purpose specified.

2. In a device of the class specified, the beam A of a plow and the supplementary beam pivoted thereto, a brace pivoted to the supplemental beam between its end and pivotal point, said brace extending forwardly and passing under the beam and being perforated, and a bracket adapted to be bolted to the beam, and a lug carried on said bracket and adapted to enter a perforation in said brace, substantially as and for the purpose specified.

In testimony whereof I hereunto affix my signature in presence of two witnesses.

MORRIS HERZBERG.

Witnesses:

O. D. WINSTON,
J. C. MCKEMIE.