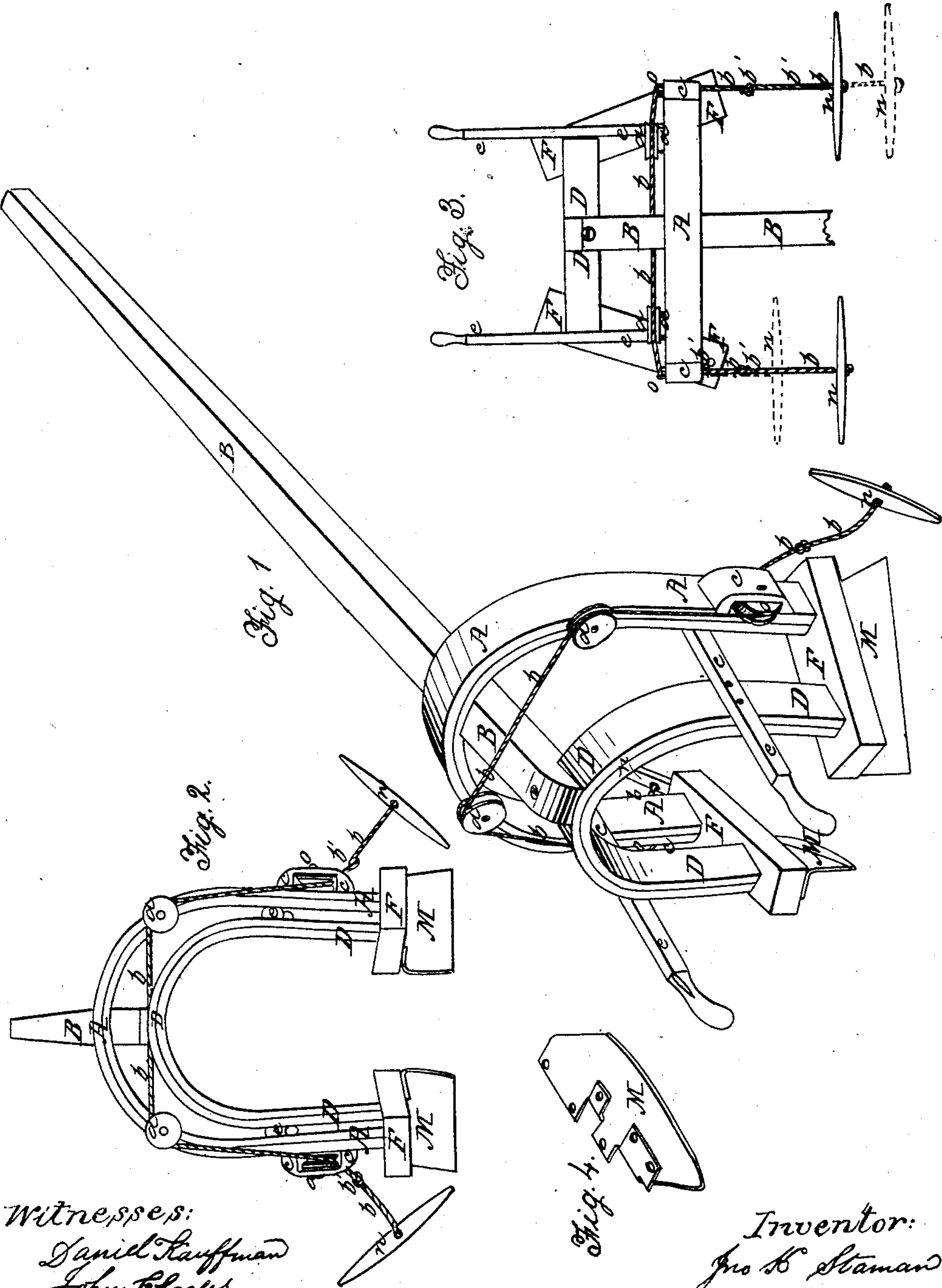


J. K. STAMAN.

Cultivator.

No. 26,796.

Patented Jan. 10, 1860.



Witnesses:  
Daniel Kauffman  
John Charles

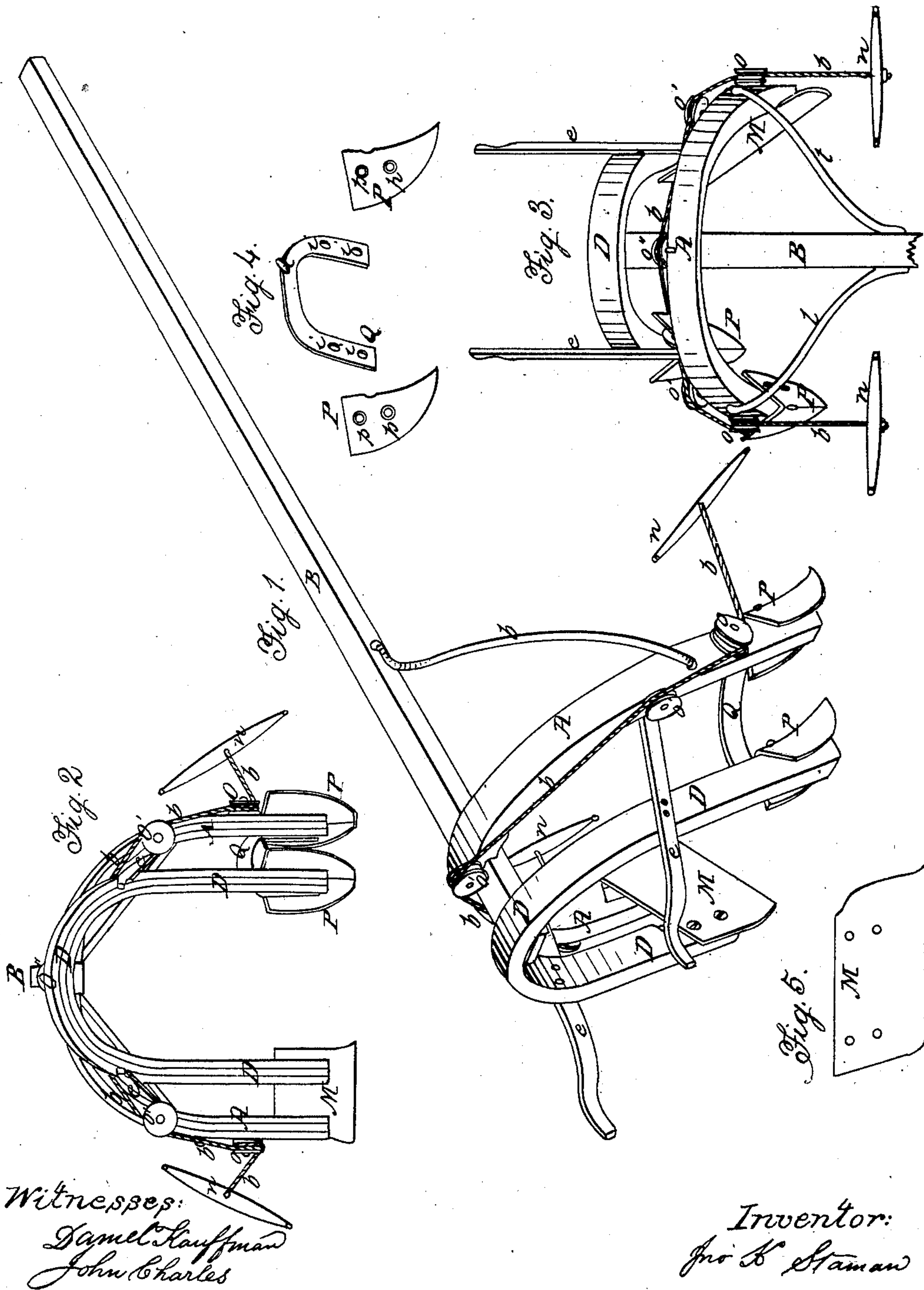
Inventor:  
Jno K Staman

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# UNITED STATES PATENT OFFICE.

J. K. STAMAN, OF MIFFLIN, OHIO.

## IMPROVEMENT IN CULTIVATORS.

Specification forming part of Letters Patent No. **26,796**, dated January 10, 1860.

*To all whom it may concern:*

Be it known that I, J. K. STAMAN, of Mifflin, of Ashland county, in the State of Ohio, have invented certain Improvements in Corn-Cultivators; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention consists in certain improvements in corn-cultivators, as hereinafter more fully described.

To enable those skilled to make and use my invention, I will proceed to describe its construction and operation, referring by letters to the accompanying drawings, forming part of this specification, and in which my invention is illustrated by the several figures (in two plates) in all its modifications.

In Plate I, Figure 1 represents a perspective view of my improved corn-cultivator. Fig. 2 represents a rear elevation. Fig. 3 represents a bird's-eye view. Fig. 4 represents detail perspectives, and Fig. 5 represents detail of covering or scraper blade.

In Plate II, Figs. 1, 2, and 3 represent views similar to corresponding views in Plate I, showing some modifications of my invention; and Fig. 4 represents detail view of scraper-blade.

In the different views and plates the same part of the apparatus is designated by the same letter.

A D are two bowed or arched beams arranged one in advance of the other and a short distance apart. These bows A and D have their highest points about in the same level, but have not the same degree of curvature, the circle of the rear bow, D, being of a less radius than that of the forward one, A, so that the lower ends, D, come within the lower ends of A. (See Figs. 2 and 3, Plates I and II.)

B is the horizontal beam to which the team is harnessed. This beam firmly connects at its rear end the two bows A and D, and is braced by rods *l* (see Plate I) to the forward, A. Said beam or pole B is, by being attached to the tops of the bows, elevated as much as possible, allowing the proper attachment of the team, in order that it may pass well over the row of corn.

*e e* are the operator's handles, which are arranged one on each side of the machine, each

being secured to the inner surface of the bow A and the outer surface of the bow D by bolts, and both arranged at the proper height and made of a suitable length.

M are the scrapers; P, the cultivating-blades, and Q the connecting-straps, which are secured to the lower extremities of the bows A and D in a manner which will be presently fully explained.

On the rear or back surface of the bow A, at its highest point, is arranged so as to turn freely a pulley, *o''* (See Plate I.) Lower down on the same surface of said bow, on either side, are arranged in a similar manner two more pulleys, *o' o'*; and still farther down and on the other side are arranged in a similar manner two other pulleys, *o o*. (See Plate I.) Over and around these pulleys passes a cord, *b*, in a manner best comprehended by reference to the drawings, Plate I, where it will be seen that said cord *b*, lying over the top pulley, *o''*, passes down on either side, over the pulleys *o' o'*, and thence down, under, and once around the pulleys *o o*, extending from thence a short distance forward, and having attached to each end a single-tree, *n*.

The inner sides of the bows A and D, near their lower extremities, are chamfered off, so as to present two plain surfaces lying in the same plane. The object of this construction is to allow the scraper-blade M to lie along on the two bows' ends and be securely bolted to each, whereby the scraper-blade is permanently fastened, and at the same time the two bows, which cannot be braced crosswise on account of the passage of the corn between them, are braced firmly in their proper relative position, the blade M having a broad bearing on each one.

It is proposed to use under some circumstances the cultivating teeth or shares P P in line of the blades M, in which case the chamfered edges of the bows are of great utility in furnishing not only a good surface-bearing for the fastening on of each of the shares P, but also a suitable bearing for the connecting brace-strap Q, which I propose to use in my apparatus when the shares P are used. This strap Q consists of an arc of sheet metal, each extremity of the arc being extended in a straight line, and the two straight portions parallel to coincide with the ends of the bows A and D



In each of the shares are found two bolt-holes, P P, (see Fig. 4, Plate I,) and in each leg of the arc or brace-strap Q are found two similar holes, *i i*, and both the straps Q and shares P are so arranged on the lower ends of the bows that the inner surfaces of the shares on each side of the apparatus lie in the same planes and in the plane of the chamfers on the bows, and so that the legs of the strap Q lie on the same chamfers, and so that the same bolts unite the same shares P and the strap Q securely to the bows, thus accomplishing the same object as arrived at by the hereinbefore-described method of attaching the continuous scraper-plate M.

The attachment of the single-tree (as before explained) to a cord passing over and around pulleys is for the purpose of allowing the animals of the team to pull merely on the apparatus, without affecting the machine in such manner as it is affected with the ordinary attachments. The operation of this part of my invention is particularly illustrated at Fig. 3, Plate II, where the single-trees are represented as shifted from their general position (in black lines) to a distorted one (in red lines) as they would be by the uneven pulling of the animals in consequence of the roughness of the course or some other causes. By this feature of my improvement the machine, instead of being jerked around to one side by the advancement of one side of the team and the retarding of the other side, is only caused to vary in the speed of its progress, being always pulled straight forward.

The bows A and D, it will be observed, are so arranged that their lower ends do not set far enough out of the line to allow the shares P to form a separate furrow, but only so far as to cause the rear share to catch the furrow of the forward share and throw it still farther up toward the stalks. The pulleys over which the

cord *b* passes are shown in different arrangements, and if found necessary the two lower, *o o*, may be incased, as seen at *c*, Figs. 1 and 2, Plate II, and the cord *b* passed through a hole made in the front side of the case.

Having described fully the construction and operation of the several parts of my apparatus, a brief sketch of the general operation will be sufficient.

The team is harnessed to the beam or pole B in the usual manner, the near animal walking on one side of the row of corn and the off animal on the other side, and the beam B and bows A and D passing above the tops of the stalks, while the lower ends of the bows carrying the cultivators run on either side of the row, the scraper-blades M (when deemed most expedient) scraping the earth on each side of the row up toward the stalks of corn. When deemed more appropriate (according to the character of the soil, cultivation of the corn, &c.,) the cultivating-shares P are substituted for the blade M.

Having described the construction and operation of my improved corn-cultivator, what I claim therein as new, and desire to secure by Letters Patent, is—

In combination with the bows A and D, arranged relatively, as specified, and having their lower ends chamfered, as described, the cultivating teeth or shares P and the connecting brace-strap Q, when the whole is constructed and arranged as hereinbefore set forth, for the purposes specified.

In testimony whereof I have hereunto set my hand and affixed my seal this 3d day of October, 1859.

JNO. K. STAMAN. [L. S.]

Witnesses:

DANIEL KAUFFMAN,  
JOHN CHARLES.