No. 677,694. Patented July 2, 1901.

A. G. PERRY.

STANDARD ADAPTED FOR CULTIVATOR SHARES OR SHOVELS.

(Application filed Dec. 26, 1900.)

(No Model.)

Fig. 1.

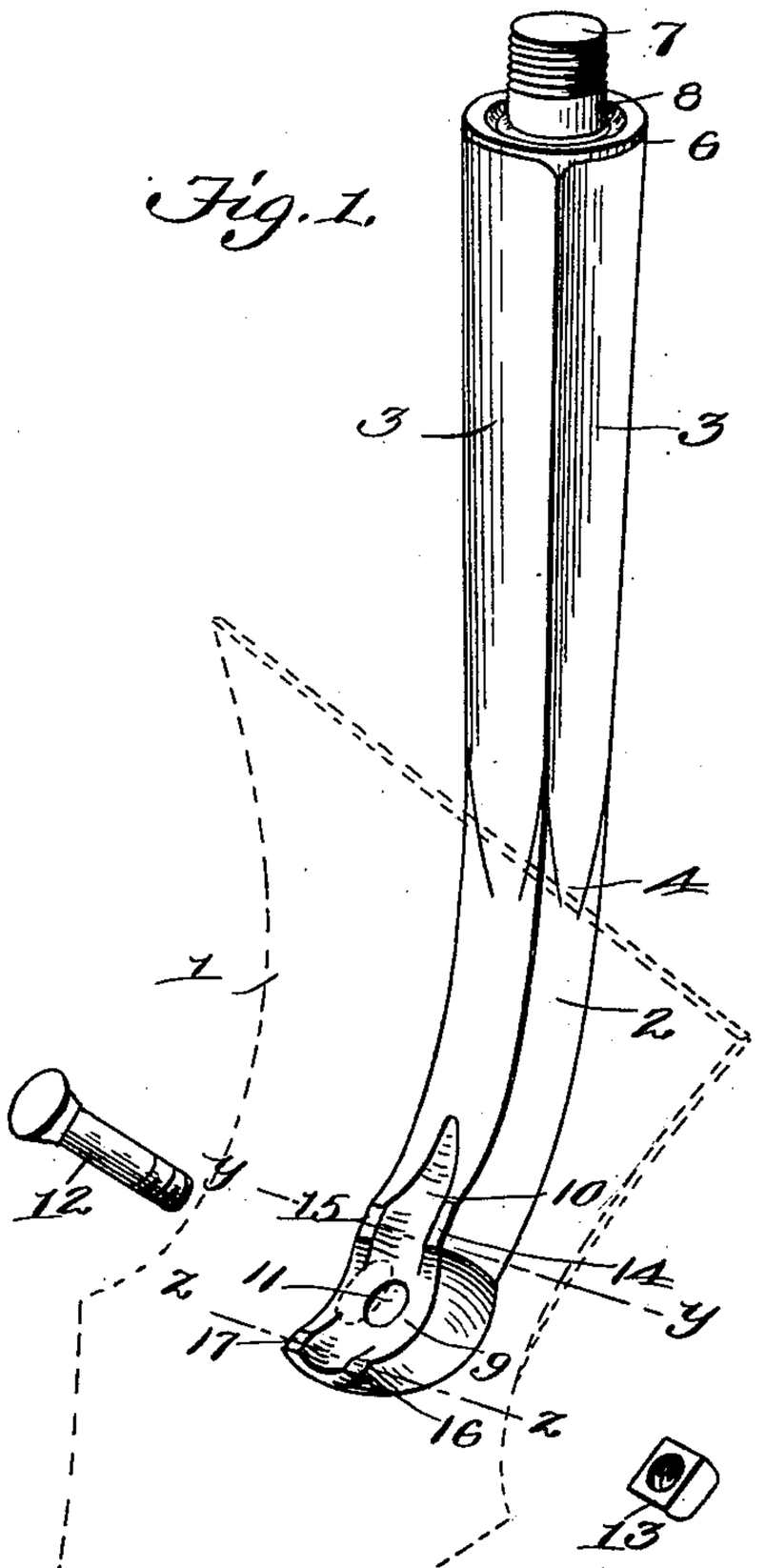

Fig. 2.

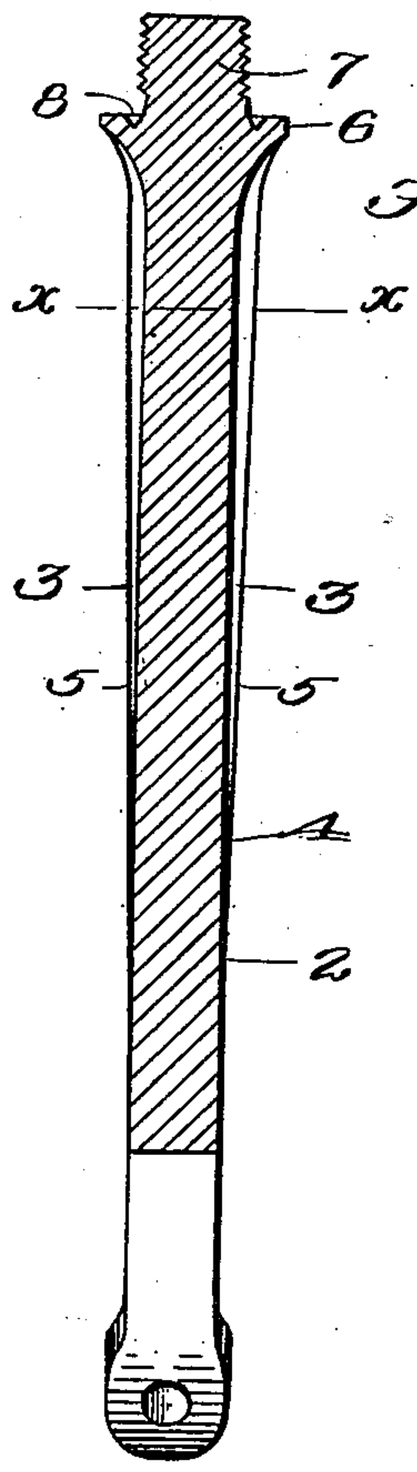

Fig. 3.

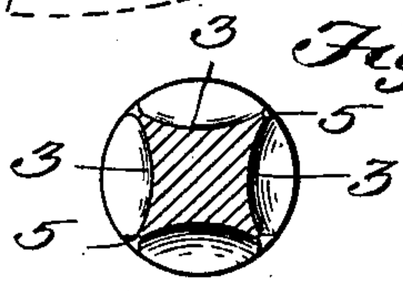

Fig. 4.

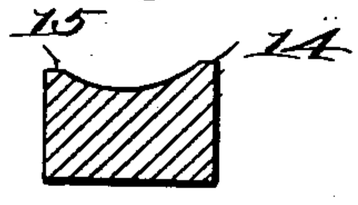

Fig. 5.

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UNITED STATES PATENT OFFICE.

ALVY GREEN PERRY, OF COLDWATER, MISSISSIPPI.

STANDARD ADAPTED FOR CULTIVATOR SHARES OR SHOVELS.

SPECIFICATION forming part of Letters Patent No. 677,694, dated July 2, 1901.

Original application filed October 9, 1900, Serial No. 32,510. Divided and this application filed December 26, 1900. Serial No. 41,106. (No model.)

To all whom it may concern:

Be it known that I, ALVY GREEN PERRY, a citizen of the United States, residing at Coldwater, in the county of Tate and State of Mississippi, have invented new and useful Improvements in Standards Adapted for Cultivator Shares or Shovels, of which the following is a specification.

This invention relates to certain new and useful improvements in standards adapted for use in connection with cultivator shares or shovels; and one object thereof is to provide a new and improved standard of the character described by means of which the share or shovel is rigidly supported against strain produced by the draft of the cultivator or the encountering of roots or other obstructions, furthermore constructing the standard in such a manner as to strengthen the same, and in its attachment to the cultivator.

To this end a further object of the invention is to construct a standard for cultivator shares or shovels which shall be extremely simple in its construction, strong, durable, and efficient in the use, and comparatively inexpensive to manufacture; and it consists of the novel combination and arrangement of parts hereinafter more specifically described, illustrated in the accompanying drawings, and particularly pointed out in the claims hereunto appended.

In describing the invention in detail reference is had to the accompanying drawings, forming a part of this specification, wherein like numerals of reference indicate corresponding parts throughout the several views, and in which—

Figure 1 is a perspective view of the standard, showing the share or shovel in dotted lines. Fig. 2 is a vertical central section of the same. Fig. 3 is a transverse section taken on the line X of Fig. 2. Fig. 4 is a transverse view taken on the line Y Y, Fig. 1. Fig. 5 is similar view taken on the line Z Z, Fig. 1.

The subject-matter of this application is a division of the application filed October 9, 1900, Serial No. 32,510.

Referring to the drawings by reference-numerals, the share or shovel 1 is indicated in dotted lines as mounted in position upon the standard. The latter is perfectly square in cross-section near its lower end, and from a suitable point near its center, as 2, it is grooved or concaved on each of its four sides, as at 3, the groove or concavity increasing from the point 4 up to the upper end of the standard. This construction results in the formation of four ribs 5 at each of the four corners of the standard, said ribs having curved sides, as most clearly shown in Fig. 3 of the drawings. An annular flange or collar 6 is formed on the upper end of the standard, the ribs 5 at their upper ends gradually merging into said collar and being flush with the periphery of the latter.

The extreme upper end of the standard is reduced and rounded, as at 7, and is screw-threaded, as shown, and an annular groove 8 is formed on the upper face of the collar 6, immediately adjacent to the base of the round tenon 7. By forming the square standard with grooved or concaved sides, as shown, or with the curved ribs 5 the standard is greatly strengthened and at the same time may be made light, while said ribs also form a support for and add strength to the collar 6. The round tenon 7 of the standard is designed to be passed through a perforation or bolt-hole in a metallic plate or cross-bar attached to the cultivator-beam, as shown and described in Letters Patent granted to me, No. 626,562, the collar 6 abutting the boss formed on the under side of said plate or cross-bar and a nut being screwed over the upper end of the threaded tenon above the plate or cross-bar and operating to hold the standard firmly and tightly in place. By grooving the upper side of the collar 6, as shown, said collar bears at its outer edge against the boss, thereby affording a stronger and more secure bearing for the collar than it would have if its upper side were made perfectly plane or straight.

In practice when a plurality of shovels are employed in each cultivator the standards will be made of different lengths, the longer standards being arranged in front and the shorter standards at the rear. The forwardly-extending curved lower end, and on the front side of which the share or shovel is secured to the standard, is concave, as shown at 9,

the concavity or curvature being greater than the corresponding convexity of the under side of the plowshare or shovel, and said front edge of the standard is vertically or longitudinally grooved or recessed, as at 10, whereby four bearing-points are provided, on which the under side of the plowshare or shovel rests or is supported. A single bolt-hole 11 is formed in the plowshare or shovel, as indicated in dotted lines, and a corresponding bolt-hole is formed in the standard. A headed bolt 12 is passed through said bolt-holes, the head of the bolt seating itself in the opening flush with the upper face of the share, and a nut 13 is screwed over the opposite end of the bolt and operates to firmly and tightly draw the share to its seat on the four projections or bearing-points above referred to. Owing to the twisted shape of the share the bearing-points are made of unequal height—that is to say, the bearing 14 on the left of the standard above the bolt-hole is higher than the corresponding bearing 15 on the right, while the bearing 16 on the left of the standard below the bolt-hole is lower than the corresponding bearing 17 on the right. The bearings or projections 16 and 17, as shown, are formed at the extreme lower end of the standard and at the extreme outer edges thereof. When the nut is tightened up, the share will be firmly drawn to and seated on the bearings, the unequal heights of the latter causing the share to accurately seat itself on the bearings, where it will be securely and rigidly held against movement or displacement in any direction.

It will be evident that when a left-hand share or shovel is employed the relative heights of the bearing-points will be reversed.

It is thought that the many advantages derived from my improved standards for firmly and rigidly holding and supporting the share or shovel in position and also from the strengthening of the standard by constructing the same in the manner shown can be readily understood from the foregoing description, taken in connection with the accompanying drawings, and it will be noted that minor changes may be made in the details of construction without departing from the general spirit of my invention.

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

1. A standard for cultivator shares or shovels, comprising a bar of suitable material longitudinally grooved or recessed and concaved on its forwardly-projecting lower end, a series of bearings or seats formed by said concavity, and means for securing said share or shovel upon said bearings or seats.

2. A standard for cultivator shares or shovels, comprising a bar of suitable material longitudinally grooved or recessed and concaved on its forwardly-projecting lower end, a series of bearings or seats of unequal height formed by said concavity, and means for securing the share or shovel upon said bearings or seats.

3. A standard for cultivator shares or shovels, comprising a metallic bar square or rectangular in cross-section at its lower end and from thence grooved or concaved on its four sides, said grooves or concavities increasing in depth from their lower ends to the upper end of the standard, substantially as described.

4. A standard for cultivator shares or shovels, comprising a metallic bar provided with a round and threaded tenon at its upper end and with an annular flange or collar below said tenon, said flange or collar being provided on its upper side with an annular groove immediately adjacent to the base of the tenon, the standard being square or rectangular in cross-section at its lower end and from thence grooved or concaved on its four sides upward to the collar, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

ALVY GREEN PERRY.

Witnesses:
P. J. CALLICOTT,
W. R. DOUGHERTY.