

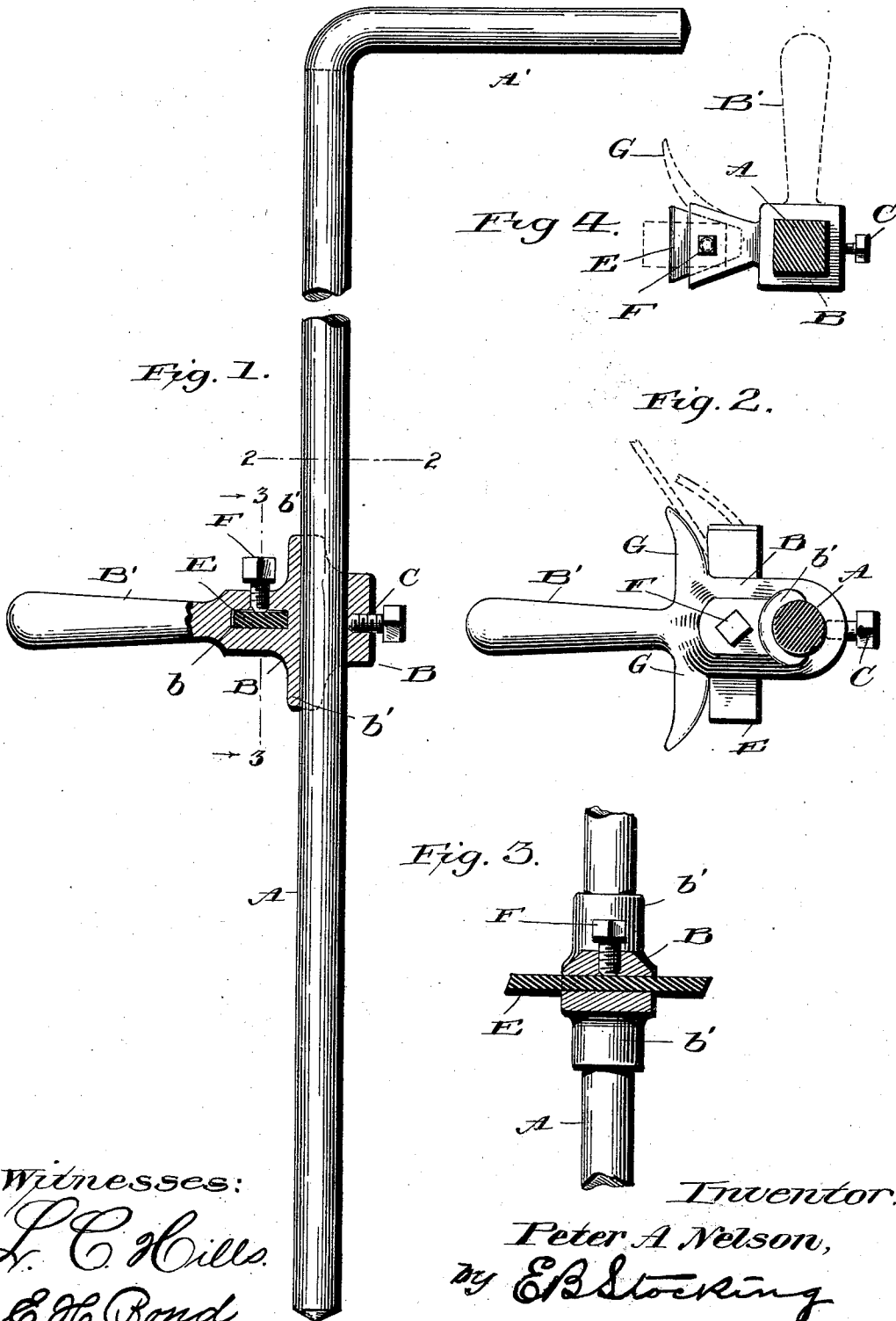
(No Model.)

P. A. NELSON.

DEVICE FOR SHARPENING DISK HARROWS.

No. 546,077.

Patented Sept. 10, 1895.



Witnesses:

L. C. Hills.
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UNITED STATES PATENT OFFICE.

PETER A. NELSON, OF WYANET, ILLINOIS.

DEVICE FOR SHARPENING DISK HARROWS.

SPECIFICATION forming part of Letters Patent No. 546,077, dated September 10, 1895.

Application filed February 4, 1895. Serial No. 537,265. (No model.)

To all whom it may concern:

Be it known that I, PETER A. NELSON, a citizen of the United States, residing at Wyanet, in the county of Bureau, State of Illinois, have
5 invented certain new and useful Improvements in Devices for Sharpening Disk Harrows, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to certain new and useful improvements in devices for sharpening disk harrows; and it has for its objects, among others, to provide a simple and cheap sharpener that can be applied to the disks
15 without removing the same from their shaft, and in which the tool may be easily adjusted to any desired height. The device embodies a rod or holder upon which is adjustably mounted a tool-carrying part having means
20 for holding the same at its adjusted position upon the rod, and also for holding the tool removably in position therein.

Other objects and advantages of the invention will hereinafter appear, and the novel
25 features thereof will be specifically defined by the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part
30 of this specification, in which—

Figure 1 is an elevation of my improved sharpener with a portion broken away and parts in section. Fig. 2 is a cross-section on the line 2 2 of Fig. 1, looking downward. Fig.
35 3 is a vertical section through the line 3 3 of Fig. 1, looking in the direction of the arrows. Fig. 4 is a cross-section showing a slightly modified form.

Like letters of reference indicate like parts
40 throughout the several views.

Referring now to the details of the drawings by letter, A designates a rod of wood or metal of the required length and cross-area, having at one end a handle or portion A' at
45 substantially a right angle to the length of the rod, as shown. The lower end may be sharpened or pointed, if desired. This rod may be round, square, or of any other shape in cross-section, in this instance being shown
50 as round.

B is a holder or casting mounted to slide upon the rod A, having an opening corre-

sponding in cross-section to that of the rod and adapted to be held thereon in any of its adjusted positions by a set-screw C. This
55 holder is provided with a handle B', as seen in Figs. 1 and 2, by which it may be manipulated, and with a transverse passage b, through which is designed to pass the tool E, which may be of any suitable character, and this
60 tool is adjustably and removably held in the holder by means such as the set-screw F, as shown. The casting or holder B is formed with the horns or extensions G, as seen in
65 Fig. 2, which serve to protect the hands and also as a bearing for the disk, and determine the angle of presentation of the tool thereto, as will be readily understood from Fig. 2. These horns or extensions are convex upon
70 the side nearest the tool, as shown, so as to better receive the disk and provide a firm bearing therefor. The holder is extended vertically to provide an extended bearing for the rod A, as shown at b', in all of the views.

The mode of operation will be readily understood. The rod A is placed with its lower
75 end upon the ground or other support and the tool properly adjusted in the holder B. The latter is then adjusted to the proper height on the rod and there held by the set-
80 screw C and the tool presented at the desired angle to the disk, which may be rotated with its shaft in any suitable manner. The rod and holder may be adjusted to bring the tool
85 at the required angle with relation to the disk, and the latter may be given a greater or less bearing upon one of the horns to grind either edge, as occasion may require.

Modifications in detail may be resorted to without departing from the spirit of the in-
90 vention or sacrificing any of its advantages. For instance, the upright A may terminate at the point indicated by the dotted line in Fig. 1, omitting the handle portion A'. Also, as shown in Fig. 4, the holder may be constructed
95 to engage over a rectangular upright and the cutting-tool E may extend therefrom, as shown in said figure, where it is shown as in a position at right angles to that in which it is
100 shown in Figs. 1, 2, and 3. In this form the handle B', as well as the horns, are omitted; but when a triangular tool is employed, as indicated by full lines in said Fig. 4, the handle B' is present and is arranged at right angles

to the tool, as indicated by dotted lines, and there is also one horn provided, as shown by dotted lines, to protect the hand. The operation is substantially the same as in the other forms described.

What I claim as new is—

1. The combination with a vertically disposed rod adapted to be supported at one end upon the ground, and at the other end formed with a handle extended substantially at a right angle thereto, of a tool holder sleeved upon said rod and having a transverse aperture for the reception of a tool and an integral curved horn convex upon the side nearest the rod, substantially as and for the purpose specified.

2. An improved disk harrow sharpener consisting of a vertically disposed rod having at its upper end a handle extended substantially at a right angle to the length thereof, said rod being adapted to be supported at its lower end upon a suitable support, as the ground, a holder slidably mounted upon the rod and

having a handle and a horn convex upon the side nearest the rod, a tool mounted in said holder, means on the holder for engaging the rod, and means parallel with the rod for holding the tool adjustably in the holder, substantially as and for the purpose specified.

3. The improved disk sharpener described, comprising the rod with handle at one end, the holder sleeved upon said rod and having vertical extension, lateral handle and horns convex upon the side nearest the vertical extension and a transverse passage for a tool, a set screw for holding a tool in said passage, and a set screw at right angles thereto for holding the holder in its adjusted position upon the rod, substantially as shown and described.

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

PETER A. NELSON.

Witnesses:

CHARLES F. EDMINSTER,
LLEWELLYN D. EDMINSTER.