

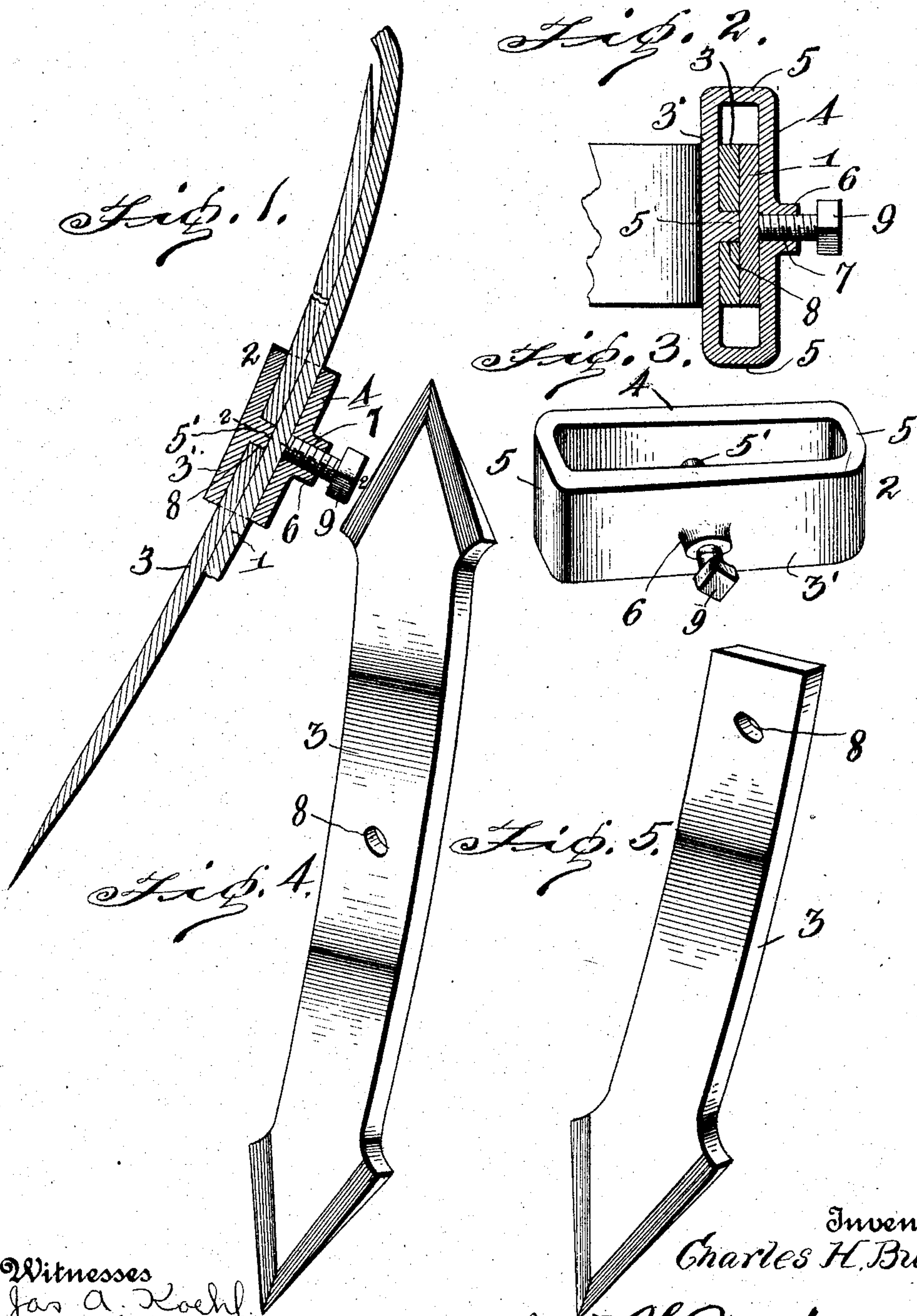
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PATENTED DEC. 20, 1904.

C. H. BUTTS.
FASTENER FOR HARROW OR CULTIVATOR TEETH.

APPLICATION FILED OCT. 6, 1904.

NO MODEL.



Witnesses
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UNITED STATES PATENT OFFICE.

CHARLES H. BUTTS, OF MIDDLETOWN, MARYLAND.

FASTENER FOR HARROW OR CULTIVATOR TEETH.

SPECIFICATION forming part of Letters Patent No. 778,108, dated December 20, 1904.

Application filed October 6, 1904. Serial No. 227,459.

To all whom it may concern:

Be it known that I, CHARLES H. BUTTS, a citizen of the United States, residing at Middletown, in the county of Frederick and State of Maryland, have invented certain new and useful Improvements in Fasteners for Harrow or Cultivator Teeth; and I do 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.

My invention relates to improvements in fastening devices for the teeth of harrows, cultivators, and the like; and it consists in certain novel features of construction, combination, and arrangement of parts hereinafter fully described and claimed.

The object of my invention is to provide simple and effective means for securing a single or reversible double tooth-point upon a broken or worn-out tooth or tooth-spring or upon any other other suitable support on the frame of a harrow or cultivator.

The above and other objects, which will appear as the nature of my invention is better understood, are accomplished by the construction illustrated in the accompanying drawings, in which—

Figure 1 is a vertical sectional view showing the application of my improved fastening means. Fig. 2 is a transverse sectional view taken on the line 2 2 of Fig. 1. Fig. 3 is a perspective view of the holding band or clip of the fastener. Fig. 4 is a similar view of a double or reversible tooth-point, and Fig. 5 is a similar view of a single tooth-point.

Referring to the drawings by numeral, 1 denotes the broken or worn-off lower end of a spring-tooth of a harrow or the like or any other depending portion upon the frame of a harrow, cultivator, or similar machine.

My improved fastener 2 is in the form of a band or clip which is adapted to surround the said tooth 1 and a removable tooth point or end 3. Said holder or fastener 2, which is substantially rectangular in form, comprises parallel front and rear sides 3' and 4, connected by ends 5. Upon the inner face of the front 3', preferably at its central point, is an inwardly-projecting integral pin or stud

5', and upon the outer or rear face of the back 4 is an outwardly-projecting boss 6, in which is formed an internally-screw-threaded opening 7, which alines with said stud 5'. The stud 5' is adapted to project into an opening or recess 8, formed at a suitable point upon the tooth-point 3, and the latter is adapted to be held thereon and clamped between the front 3' and the tooth 1 by means of a clamping or set screw 9, which passes through said threaded opening 7 and has its inner end impinging against the rear face of the tooth 1, as clearly shown in Figs. 1 and 2 of the drawings.

The tooth-point 3 may be of any desired construction. As shown in Figs. 1 and 4 of the drawings, I provide the same with a double point or end, so that it may be reversed, the opening 8 being here shown in the center of the tooth-point. In Fig. 5 of the drawings I have shown a single tooth-point, which may be substituted for the double one, as will be readily understood. The opening 8 in the latter form is located adjacent to its upper end.

The construction, operation, and advantages of my invention will be readily understood from the foregoing description, taken in connection with the accompanying drawings.

It will be seen that by means of the fastener a new point may be quickly and easily secured upon a broken or worn-out harrow-tooth and that it may be readily adjusted upon the same.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

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

1. A fastener for harrow-teeth or the like, comprising a band or clip formed with an inwardly-projecting integral stud and a screw-threaded opening, and a clamping-screw in said opening, substantially as described.

2. A fastener for harrow-teeth or the like, comprising a band or clip of substantially rectangular form having an inwardly-projecting integral stud disposed centrally upon one of

its sides and an outwardly-projecting alining boss formed with a screw-threaded socket upon the other of its sides, and a clamping-screw in said screw-threaded socket, substantially as described.

3. The combination of a tooth, a tooth-point formed with an opening, a fastener surrounding said tooth and tooth-point and formed with an integral stud to engage the opening
10 in said tooth-point and with a screw-threaded opening, and a clamping-screw in said screw-

threaded opening adapted to engage said tooth, substantially as described and for the purpose set forth.

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

CHARLES H. BUTTS.

Witnesses:

WM. W. DOUB,
HARRY M. GROSS.