

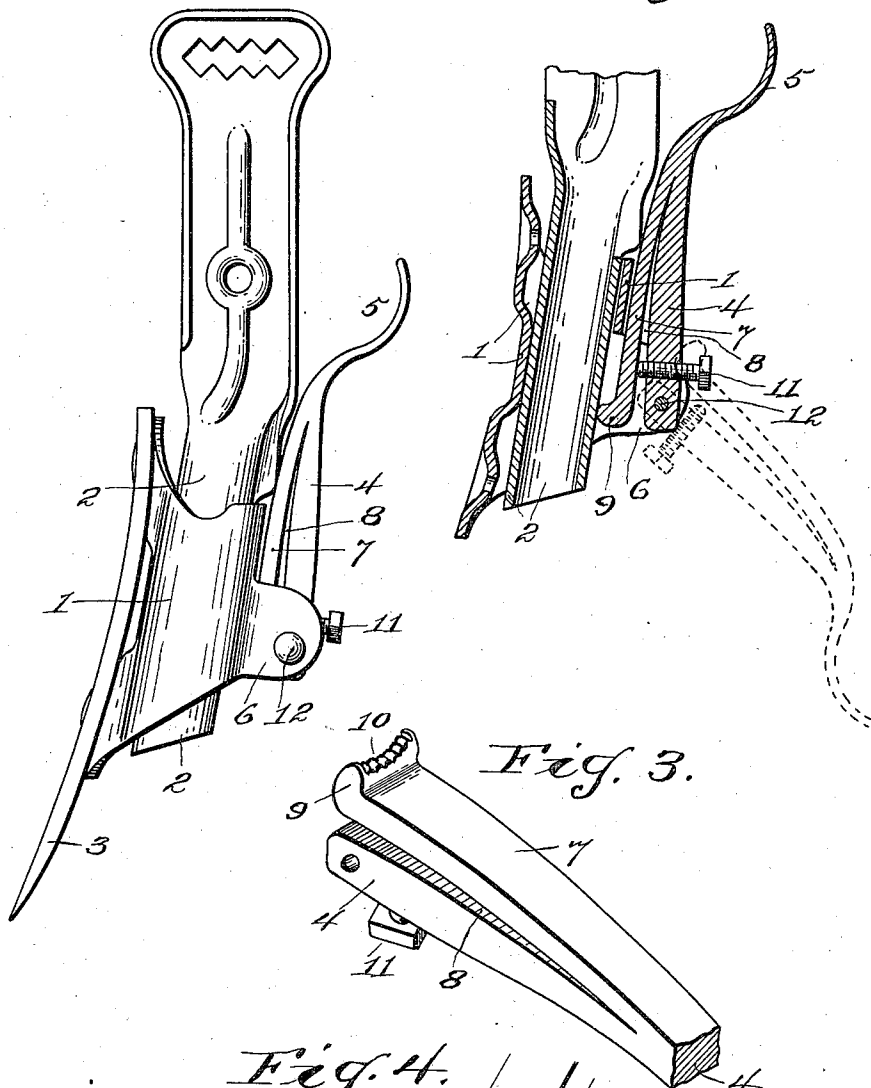
C. E. LOGAN & A. R. BARNETT.
 AUTOMATIC DEVICE FOR ATTACHING AND DETACHING PLOW POINTS.
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1,045,048.

Patented Nov. 19, 1912.

Fig. 1.

Fig. 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

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AUTOMATIC DEVICE FOR ATTACHING AND DETACHING PLOW-POINTS.

1,045,048.

Specification of Letters Patent.

Patented Nov. 19, 1912.

Application filed April 6, 1912. Serial No. 688,917.

To all whom it may concern:

Be it known that we, CHARLES E. LOGAN and ALLEN R. BARNETT, citizens of the United States, residing at Mill Grove, in the county of Mercer and State of Missouri, have invented certain new and useful Improvements in Automatic Devices for Attaching and Detaching Plow-Points, of which the following is a specification.

This invention relates to devices for attaching and detaching plow-points or shovels to plow-stocks, and pertains especially to improvements upon our Patents No. 941,933, and No. 991,158, issued November 30, 1909, and May 2, 1911, respectively.

The object of this invention is to provide an automatic device for connecting and disconnecting plow-points or shovels with plow-stocks, and to furnish such construction as to lessen the individual number of parts and the expense of production, with increased facility for expeditious operation.

A further object of the invention is to provide a clamping lever with a clamping spring which is carried by and with the lever in a clamping operation.

In one of the patents hereinbefore mentioned the clamping spring is hung from the plow-stock, and in the other of said patents the spring is attached to the plow-stock sleeve, and in both patents the free end of the springs is operated by a cam-lever, but such constructions and arrangements of parts are advantageously simplified and reduced in the device forming the subject matter of this application.

In the accompanying drawings forming part of this application:—Figure 1 is a side elevation showing the application of the invention. Fig. 2 is a central vertical section, the dotted lines showing the lever in unclamped position. Fig. 3 is a detail perspective view of the clamping lever and spring. Fig. 4 is a detail perspective view of the spring-foot.

The same reference characters denote the same parts throughout the several views of the drawings.

An ordinary holder or sleeve 1, fitting a plow-stock 2, and having a plow-point or shovel 3 attached thereto, are employed in carrying out this invention. The means for clamping the said sleeve to the stock so that the sleeve may be adjusted vertically and laterally on the stock, whereby the plow-point or shovel is placed in such positions as

desired, consists of a lever 4, having a hand-piece 5, and pivoted to and between ears 6 of the sleeve 1; and a plate-spring 7, which is preferably part of the lever 4, or the spring may be attached to the lever, or located with respect thereto so as to be given eccentric movement by swinging the lever for clamping and unclamping the holder or sleeve with the plow-stock. The spring 7 is preferably branched from the upper portion of the lever 4, and extends parallel with the lever to the pivoted end of the latter, with a space 8 between the lever and the spring, and the spring terminates in a foot 9, which is curved outwardly from the inner face of the spring and projects from the outer face of the spring. The projecting portion of the foot 9 is concaved or arc-shaped so as to conform with the cylindrical shape of the stock 2, and said arc-shaped portion has a series of corrugations forming curved ribs 10, for engaging the stock 2, in a clamping operation therewith. The lever is provided with a set-screw 11, for varying the tension of the spring, and the screw may be used for setting the spring according to the size of the stock, and according to the space between the pivot 12, and the stock. The set-screw also forms an abutment for the spring so as to prevent the spring from back pressure on the lever-pivot, in a clamping operation.

It will be seen that the spring is carried by the lever so that the foot of the spring is given eccentric movement, and by reason of such movement the concaved and curved engaging face of the foot, the latter is gradually forced into engagement with the plow-stock as the lever is raised, and by forcing the lever into vertical position, the clamping operation is perfected.

The lever and the spring constituting the actual clamping device, and the same being practically one article, it is obvious that its application and operation are exceedingly simple and inexpensive.

We do not wish to limit ourselves in the application of this device, nor to any particular means for connecting the spring with the lever, but reserve to ourselves the right to make such changes therein as may come within the scope of the following claims.

Having thus described our invention, what we claim as new and desire to secure by Letters Patent is:—

1. A clamping device for plow-stocks,

comprising a holder for a plow-point or shovel, a lever pivoted to the holder, and a spring carried by the lever and in eccentric movement for clamping the holder to the
5 stock.

2. A clamping device for plow-stocks, comprising a holder for a plow-point or shovel, a lever pivoted to the holder, and a spring attached to and carried by the lever
10 and in eccentric movement for clamping the holder to the stock.

3. A hand clamping device for plow-stocks, comprising a holder for a plow-point or shovel, a lever pivoted to the holder, and
15 a spring having a curved and concaved foot carried by the lever and in eccentric move-

ment against the stock for clamping the holder to the stock.

4. A hand clamping device for plow-stocks, comprising a holder for a plow-point 20 or shovel, a lever pivoted to the holder, and a spring branched from the lever and swingable in eccentric movement against the stock for clamping the holder to the stock.

In witness whereof we hereunto set our 25 hands in the presence of two witnesses.

CHARLES E. LOGAN.
ALLEN R. BARNETT.

Witnesses:

P. S. MOFFITT,
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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."
