May 24, 1927. 1,629,548

J. SPAHN

CULTIVATOR TOOL CLAMP

Filed Jan. 17, 1927

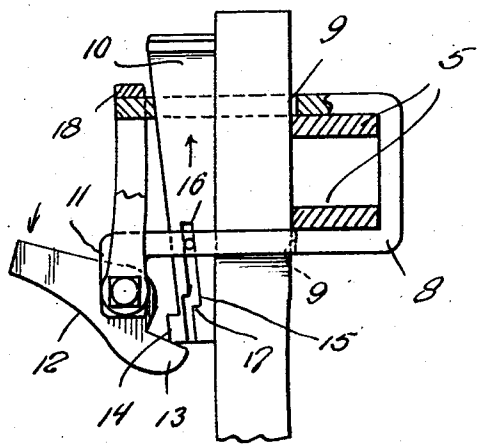


Fig. 1.

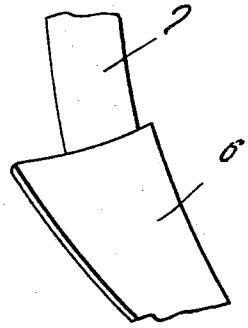


Fig. 2.

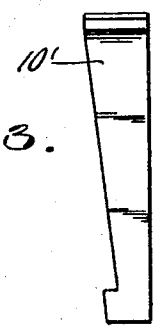
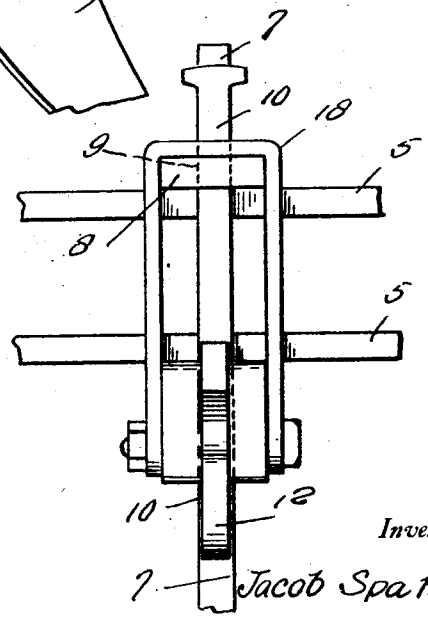


Fig. 3.



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UNITED STATES PATENT OFFICE.

JACOB SPAHN, OF HILLROSE, COLORADO.

CULTIVATOR TOOL CLAMP.

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This invention relates to new and useful improvements in clamps for attaching cultivator tools to the usual frame bar or bars of a cultivator, and has for its primary object to provide highly novel, simple and efficient means to facilitate the rapid attachment to or removal of cultivator points and the like with respect to a cultivator.

The invention further aims to provide a device of this character wherein the same includes a clamping wedge, and wherein means is provided at the lower end of the wedge for facilitating the rapid displacement thereof in order that the tool may be removed. Furthermore, said means is of such a nature that a downward blow thereon will force the wedge in an upward direction for thereby overcoming the necessity of striking the lower end of the wedge which is very difficult and frequently unsatisfactory.

With the foregoing and other objects in view as the nature of the invention will be better understood, the same comprises the novel form, combination and arrangement of parts hereinafter more fully described, shown in the accompanying drawing and claimed.

In the drawing wherein like reference characters indicate corresponding parts through the several views:

Figure 1 is a view mainly in side elevation and partly in section of a clamp for cultivator tools constructed in accordance with the present invention, the same being shown as actually in use.

Figure 2 is a rear elevation thereof, and

Figure 3 is a side elevation of one type of wedge employed in carrying out the present invention.

Now having particular reference to the drawing, 5—5 designates the usual pair of spaced bars of a cultivator to which the various tools are to be attached, the tool in the present instance being in the form of an ordinary cultivator point 6 associated with the lower end of the usual flat bar-like shank 7. My invention per se consists of a relatively U-shaped body 8 of rigid metal that is adapted for disposition over the bars 5—5 of the cultivator in a manner as clearly disclosed in Figure 1, the arms of this body extending considerably beyond the rear edges of the bars as in said Figure, and formed in back of said bars with vertically aligned longitudinal slots 9—9, the rear ends of which are tapered as shown. Obviously, after the body 8 is disposed over the bars 5—5, the shank 7 of the cultivator point is disposed upwardly through the slots 9—9 after which a tapered wedge 10 is disposed through the slots in back of said shank so that a downward pressure upon the same will tightly wedge the shank between the bars 5—5 and said wedge 10.

The rear end of the lowermost arm of the U-shaped body 8 is formed with a depending tongue 11 within a slot in the center of which is pivoted a lever 12, the inner end of which is formed with a nose 13 for engagement with a lateral lug 14 upon the lower end of the wedge 10. Obviously upon the striking of the outer end of the lever 12 by a hammer or the like, the wedge 10 is forced upwardly so as to release the shank 7 of the cultivator point 6 so that the same may be readily removed from the cultivator supporting bars 5—5.

If desired, means may be provided for preventing the jumping of the wedge 10 through the slots 9—9 in both of the arms of the body when the lever 12 is struck. This means preferably consisting of a longitudinal slot 15 at one side of the wedge 10 and at the lower end thereof within which projects a pin 16 carried by the lower arm of the body at the other side of the slot 9. As disclosed in Figure 1 the lower end of this slot is offset at its lower end for providing a shoulder 17 that will engage the pin 16 during the upward movement of the wedge for accomplishing the result previously mentioned.

However, if desired, the wedge may be unslotted as clearly disclosed in Figure 3, the wedge in this figure being designated by the reference character 10′.

Pivotally secured to the tongue 11 of the lower arm of the body 8 by the same pivot connecting the lever 12 thereto is a U-shaped yoke 18 that is to be swung over the rear end of the upper arm of the body 8 so as to prevent the expansion of said arms during the attachment and detachment of the cultivator tool.

It will thus be seen that I have provided a highly novel, simple, and efficient cultivator tool clamp that is well adapted for all the purposes heretofore designated and even though I have herein shown and described the invention as consisting of certain detail structural elements it is nevertheless to be understood that some changes may be made

therein without affecting the spirit and scope of the appended claims.

Having thus described the invention, what I claim as new is:—

1. In a cultivator tool clamp of the character described, a member constructed for disposition over the tool supporting bar of the cultivator and having a slot therein for receiving the shank of the tool, a wedge for insertion through the slot in back of said shank, and means associated with said member for engagement with one end directly beneath the wedge and adapted to receive a downward blow at its opposite end for releasing said wedge.

2. In a cultivator tool clamp of the character described, a member constructed for disposition over the tool supporting bar of the cultivator and having a slot therein for receiving the shank of the tool, a wedge for insertion through the slot in back of said shank, and means associated with said member for engagement with one end directly beneath the wedge and adapted to receive a downward blow at its opposite end for releasing said wedge, and complemental construction between the wedge and said member for limiting the upward movement of the wedge in the releasing of the same.

3. In a cultivator tool of the character described, a U-shaped member for horizontal engagement over the tool supporting bar of the cultivator, the legs of which are formed with registering slots at one side of the bar for receiving the shank of the tool, a wedge for insertion through the slots in back of said shank and means associated with the U-member for engagement at one end directly beneath the wedge and adapted to receive a downward blow at its opposite end for releasing said wedge.

4. In a cultivator tool clamp of the character described, a relatively U-shaped member constructed for horizontal engagement over the tool supporting bar of the cultivator, the legs of which are formed with registering slots at one side of the bar for receiving the shank of the tool, a wedge for insertion through the slots in back of said shanks, means for engagement over the ends of the legs of the U-member for preventing the expansion of the same, and means associated with the lower leg of the member for engagement at its inner end with the lower end of said wedge and adapted to be struck at its opposite end for releasing said wedge.

5. In a cultivator tool of the character described, a member constructed for detachable disposition over the tool supporting bar of the cultivator and having a slot therein for receiving the shank of the tool, a wedge adapted to be disposed within the slot in back of said tool shank, a lever pivoted to the member and adapted to engage with one edge beneath the wedge and adapted to be struck at its outer end a downward blow for so swinging the member as to release said wedge.

6. In a cultivator tool of the character described, a member constructed for detachable disposition over the tool supporting bar of the cultivator and having a slot therein for receiving the shank of the tool, a wedge adapted to be disposed within the slot in back of said tool shank, a lever pivoted to the member and adapted to engage with one edge beneath the wedge and adapted to be struck at its outer end a downward blow for so swinging the member as to release said wedge, and complemental construction between the bar attached member and said wedge for limiting the upward movement of the wedge when said pivotal member is struck.

In testimony whereof I affix my signature.

JACOB SPAHN.