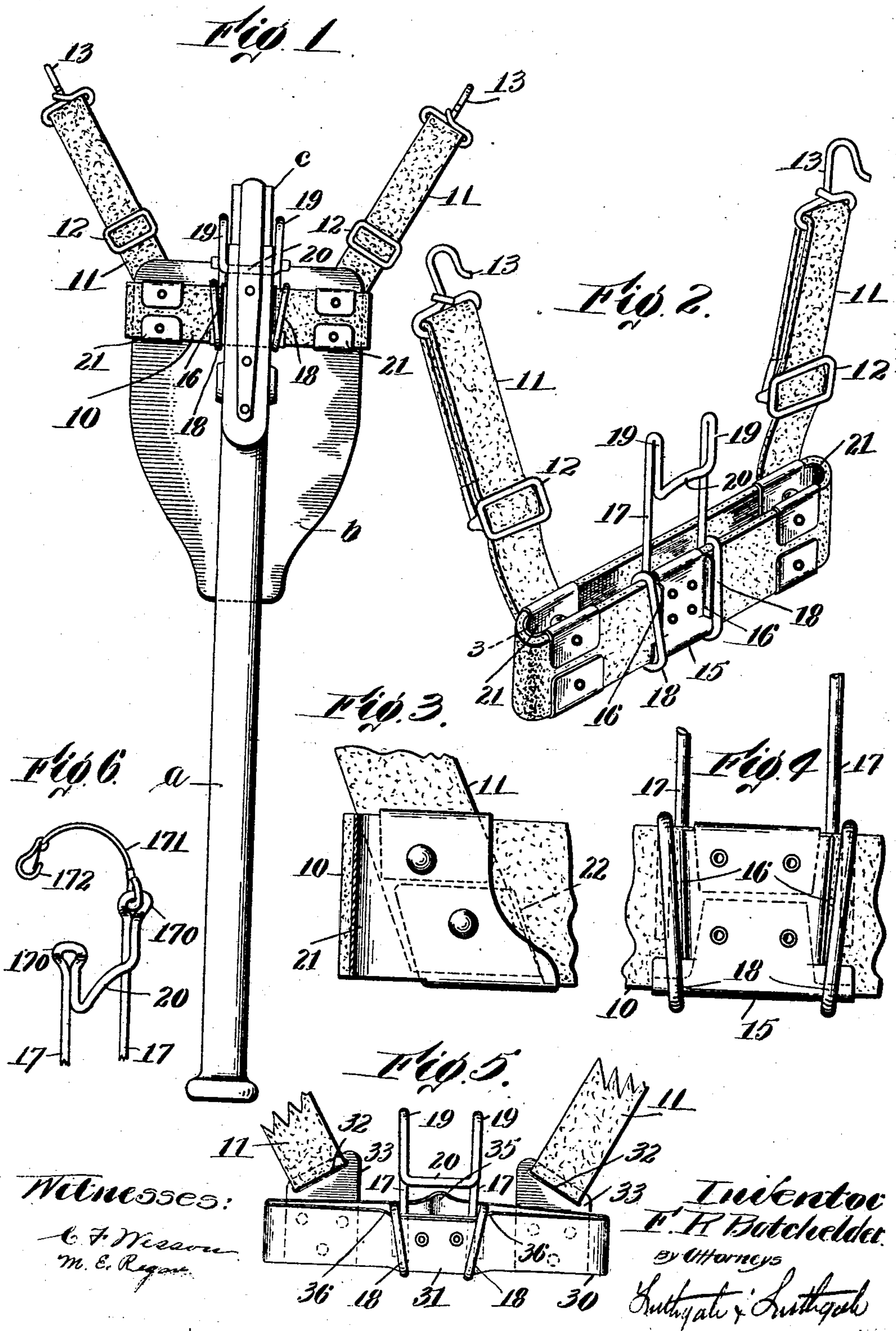


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CARRIER FOR TRENCH DIGGERS.
APPLICATION FILED FEB. 3, 1908.

904,596.

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UNITED STATES PATENT OFFICE.

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CARRIER FOR TRENCH-DIGGERS.

No. 904,596.

Specification of Letters Patent.

Patented Nov. 24, 1908.

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To all whom it may concern:

Be it known that I, FRANK ROE BATCHELDER, a citizen of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented a new and useful Carrier for Trench-Diggers, of which the following is a specification.

This invention relates to a device for carrying trench-diggers and similar articles on the person as part of the trappings or equipment of a military outfit, and which while capable of general use, has been especially adapted and designed for the purpose of carrying a form of trench digger in which the blade is mounted to turn on the handle in such a way that the blade can be brought into position to be used as a hoe, or as a spade, or can be folded up parallel with the handle when it is to be carried.

The principal objects of the invention are to provide a light, strong, and simple carrier which shall be adapted particularly for carrying this kind of a trench digger, and to construct the same so that a more or less flexible sheath will be provided for receiving the blade when the latter is folded into the parallel position above indicated, whereby the digger can be placed in position on the carrier simply by introducing the blade into the sheath from above.

A further object of the invention, is to provide a comparatively rigid support for the joint between the blade and handle of the digger. This support also preferably is provided with a guide for the joint of the blade, and the sheath preferably is provided with metallic guards at the ends to guide the blade into proper position and prevent its cutting the sheath when the latter is made of textile material. Simple and convenient means also is provided for carrying the sheath so that it may be connected with the belt or other military trappings.

Further objects and advantages of the invention will appear hereinafter.

Reference is to be had to the accompanying sheet of drawings which show certain preferred forms of the invention, and in which

Figure 1 is an elevation of a trench digger of the form indicated above, showing how it may be supported by a carrier in accordance with this invention. Fig. 2 is a perspective view of the carrier shown in Fig. 1. Fig. 3

is a sectional view of a detail of a part thereof. Fig. 4 is an elevation of another feature of construction; Fig. 5 is a perspective view showing a modified form, and Fig. 6 is a detail view of means which may be employed to hold the digger in the support.

The form of trench digger for which this invention is particularly designed ordinarily involves a handle *a*, a blade *b*, and a joint *c*, by which the handle and blade are connected. By manipulating the parts in certain ways the blade can be swung to different positions, and when it is to be carried, it is held in a position substantially parallel with the handle as indicated in Fig. 1. In order to carry this device, a sheath 10 is provided which is of a shape similar to that of the upper end of the blade and in the form shown in the first four figures, consists principally of a tube or endless strap of textile or other flexible material. This sheath is provided with straps 11 extending from its ends, preferably diverging and adapted to be adjusted in length by means of any desired kind of fastening device 12. The straps are preferably provided with hooks 13 by means of which they may be attached to the top of the cartridge belt of the wearer or to loops, holes, or other devices which may be convenient on the belt, haversack, or the like. It will be obvious, therefore, that the sheath will be carried hanging down in a convenient position close to the side of the wearer, and the straps being applied to the back or inside part of the sheath, the sheath itself will be located entirely on the outer side of the straps so that the blade of the digger may be introduced into it from above in a natural and convenient manner.

For the purpose of properly supporting the digger from the sheath and also for elevating the joint so that the upper or rear end of the blade will fit in the sheath, the latter on its outside part is provided with a rigid portion 15. In the form shown in the first four figures this rigid portion consists of a piece of sheet-metal bent around the outer wall of the sheath and riveted thereto so that it will be held in position. This rigid portion 15 also has a pair of integral flanges 16. On this rigid portion is secured a supporting frame 17, which, in the form indicated, consists of a single piece of wire bent up into shape around the rigid portion 15 to

form loops 18 by which it is fixed to the sheath. These loops preferably pass close to the flanges 16 which constitute means for preventing the supporting frame from moving along the sheath. The wires are connected by a cross-bar 20 constituting the real support for the joint of the digger.

It will be observed that when the blade is applied to the sheath the guides 19 will engage the opposite sides of the joint and guide it to a central position, so that it will rest on the cross-bar or support 20. It will be seen therefore, that the weight of the digger will be borne by this support, and that its position will be determined by the guides 19 and by the inner wall of the ends of the sheath.

In order that the outer edges of the blade may be guided and prevented from cutting the sheath when the latter is made of fabric, the ends thereof are lined with metallic guards 21. These are bent over the outer side of the sheath and riveted therethrough. It is convenient to connect the straps 11 with these guards on the rear side of the sheath, and for this purpose an angular flange 22 is provided at this point to hold the lower end of each strap securely. The rivets which are used to secure the straps to the sheath may extend through these guards and thus strengthen the device at this point.

If desired the article may be made in other forms than that described. In Fig. 5 the sheath 20 is shown as made of a single piece of sheet metal, its ends being brought together and riveted to each other to form a double or rigid portion 31 which carries the supporting frame 17. The latter is shown as of substantially the same form as that above described, but in this case the loops 18 thereof are held in position by coming against the overlapped ends of the metal sheath, or by a slight bend 36 in the sheath at that point. In this case also it will be understood that the ends of the sheath itself constitute means for performing the functions of the guards 21 described above. The straps 11 which support the structure are similar to those described above, except that in this case the adjustment is at the bottom of these straps instead of at the top. These straps pass through inclined slots 32 in projections 33 on the rear side of the sheath. A sheath made of metal in this way is, of course, somewhat flexible, but it has permanent form, and to accommodate the blade, it is given a shape similar to the cross section of the rear or upper end of the blade which it is to support; that is, it is provided with an outer bend 35 at the rear side to receive the rib on the blade.

In some cases it may be desirable to hold the digger from jumping up out of the support and means adapted for this purpose is shown in Fig. 6, as consisting of loops or eyes

170 formed at the portions 17 of the support between which is arranged a cord 171 with a snap hook 172 or a strap with snap fasteners.

From what has been stated, it will be seen that a simple, convenient and strong carrier is provided for a trench digger and that the latter is carried thereby in such a way that it will not become loosened or lost from the carrier, and will not interfere with the free action of the person. Moreover, it will be noticed that the digger is guided into position so that it may be inserted in a very simple manner without any particular care as to how it is put in position. Moreover the sheath is well guarded against any action which the metallic blade of the digger might have upon it.

While I have illustrated and described certain forms in which the invention may be embodied, I am aware that many modifications may be made thereby by any person skilled in the art, without departing from the scope of the invention as expressed in the claims. Therefore, I do not wish to be limited to the particular forms shown, or to the details of construction thereof, but

What I do claim is:—

1. A carrier for a folding trench digger having a supporting cross bar for engaging the joint of the digger between the blade and handle thereof and supporting it, said cross bar being parallel with the plane of the blade and located above the main body of the carrier.

2. A carrier for a folding trench digger having a cross bar for engaging and supporting the joint between the blade and handle, and means below said cross bar for receiving the blade.

3. A carrier for an implement comprising a support for bearing the weight of the implement, and means below the support for guiding the implement and covering its edges.

4. A carrier for an implement comprising a support for bearing the weight of the implement, means below the support for guiding the implement and covering its edges, and guides extending above said support for guiding the implement to a proper seat on the support.

5. A carrier for the purpose described comprising a sheath for the blade of an implement, said sheath having a rigid portion, and a supporting frame carried by said rigid portion extending upwardly therefrom, and having a supporting surface in the upper part thereof, whereby the blade of the implement may depend from said supporting surface.

6. A carrier for the purpose described comprising a sheath having a metallic rigid portion near the center of one side thereof, and a supporting frame carried by said

rigid portion extending upwardly from the top of the sheath, said frame having a cross-bar above the sheath.

7. A carrier for the purpose described, 5 comprising a sheath having a metallic rigid portion near the center of one side thereof, a supporting frame carried by said rigid portion and extending upwardly from the top of the sheath, said frame having a cross- 10 bar above the sheath, and two guides extending upwardly from the end of said cross-bar.

8. A carrier for the purpose described 15 comprising a flexible sheath having a rigid portion midway between its ends, and a frame consisting of a single piece of wire wound around said rigid portion and extending upwardly therefrom, the upper ends 20 of the wire constituting two guides, said ends being connected by a cross bar above said rigid portion.

9. A carrier for the purpose described, 25 comprising a frame consisting of a single integral piece of wire, the upper ends thereof constituting two vertical guides, and said guides being connected at their lower ends by a cross-bar for supporting an implement.

10. A carrier for the purpose described 30 comprising a tubular open-bottomed sheath, a guide, a support extending upwardly from the sheath between its ends, and metallic guards at the ends of the sheath.

11. A carrier for a trench digger comprising a flexible textile open-bottomed 35 sheath for receiving the butt of the blade

of the trench digger having metallic guards at its ends for guiding and protecting the edges of the blade, and having means rigidly supported above the sheath for receiving the entire weight of the trench digger. 40

12. A carrier for a folding trench digger comprising a sheath for receiving the blade thereof, means above said sheath for supporting the joint of the blade, and straps 45 connected with the sheath near the ends thereof and diverging therefrom outwardly.

13. A carrier for a trench digger comprising a flexible sheath for receiving and guiding the blade of the digger, means carried by the sheath for supporting the joint 50 of the blade, and flexible straps connected with the ends of the sheath on the side opposite that on which said supporting means is carried. 55

14. A carrier for a folding trench digger comprising a flexible sheath for receiving the blade of the digger, means carried above said sheath for supporting the joint of the blade, adjustable straps connected with the 60 ends of said sheath, and hooks connected with said straps for supporting them.

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

FRANK ROE BATCHELDER.

Witnesses:

LOUIS W. SOUTHGATE,
C. FORREST WESSON.