No. 744,756. PATENTED NOV. 24, 1903.

O. S. HAUKVIK.

SPADE HANDLE.

APPLICATION FILED JULY 21, 1903.

NO MODEL.

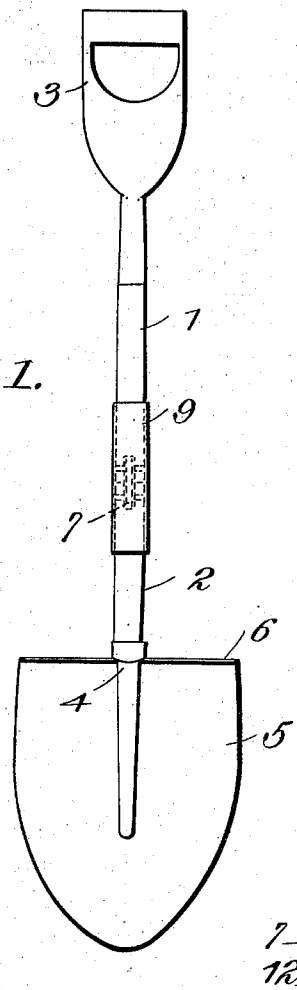

Fig. 1.

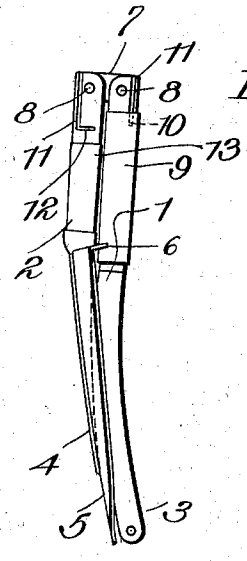

Fig. 3.

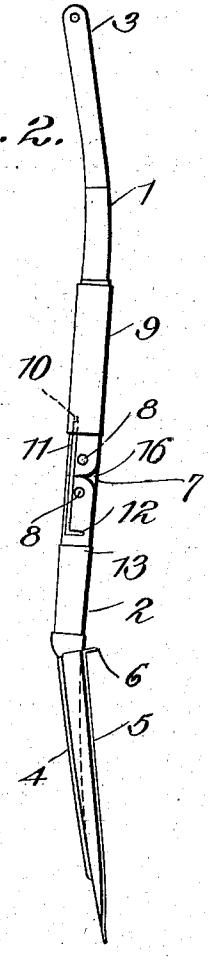

Fig. 2.

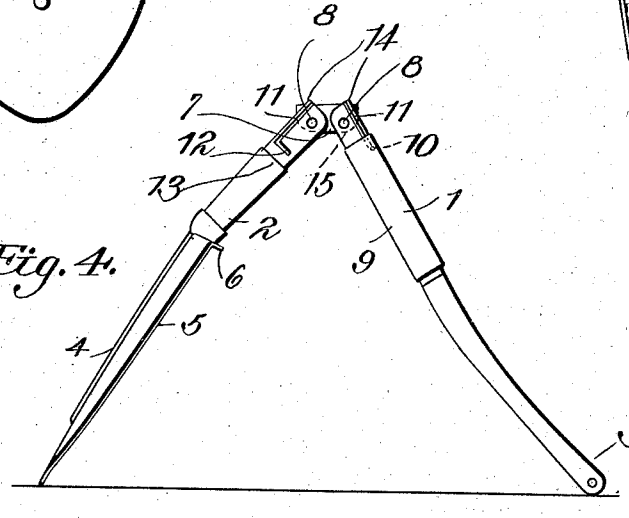

Fig. 4.

Witnesses
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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

No. 744,756. Patented November 24, 1903.

UNITED STATES PATENT OFFICE.

OLE SVENNUNGSEN HAUKVIK, OF SAUDE, NORWAY.

SPADE-HANDLE.

SPECIFICATION forming part of Letters Patent No. 744,756, dated November 24, 1903.

Application filed July 21, 1903. Serial No. 166,460. (No model.)

To all whom it may concern:

Be it known that I, OLE SVENNUNGSEN HAUKVIK, a subject of the King of Sweden and Norway, residing at Saude, in the Province of Thelemarken, Kingdom of Norway, have invented a new and useful Improvement in Spade-Handles, of which the following is a specification.

This invention relates to folding spades; and it has for its object to provide a device of this class which shall possess superior advantages in point of simplicity, durability, and general efficiency.

My improved spade, while not limited to any particular use, may be stated as being constructed especially for military purposes, comprising a tool which may be readily folded in compact shape and which when thus folded may be readily strapped onto a knapsack or otherwise carried by the soldier, the said tool being useful for a variety of purposes, among which that of throwing up fortifications of course is preëminent. It may, however, additionally be used as a shield and also, incidentally, as a gun-rest, for which latter purpose it is especially adapted. My improved spade, however, will also be found extremely useful for prospectors and others whose carrying capacity is limited and to whom it is an object of great importance to have a digging-tool which may be carried in small compass and which, while limited as to the size thereof, shall be possessed of sufficient strength and durability to enable it to be advantageously used.

With these and other ends in view my invention consists in the improved construction, arrangement, and combination of parts constituting the members of my said improved spade, which will be hereinafter fully described, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a front view showing the spade ready for use. Fig. 2 is a side view showing the spade unfolded, but with the connecting-sleeve raised, so as to expose the joint. Fig. 3 is a side elevation showing the spade folded. Fig. 4 is a side view showing the spade partially unfolded in a position to serve as a gun-rest.

Corresponding parts in the several figures are indicated by similar numerals of reference.

The shaft of my improved spade is composed of an upper and a lower section, (designated, respectively, 1 and 2.) The upper section is provided with a handle 3, and the lower section is pointed, so as to engage a socket 4 in the blade 5, with which the said lower handle-section is permanently connected. The upper edge of the blade has a forwardly-extending flange 6, forming a tread upon which the foot of the operator may be placed. The shaft-sections 1 and 2 are provided at their meeting ends with notches or recesses for the reception of a connecting-link 7, which is pivotally connected with the notched ends of the shaft-sections 1 and 2 by means of pivotal pins 8, which may be removable, if desired, so as to enable the sections to be disconnected for cleaning or other purposes. The shaft-sections are cylindrical in shape, and upon the upper shaft-section is slidingly mounted a sleeve 9, having an interiorly-disposed pin 10, adapted to engage a groove 11, formed in the adjacent ends of the shaft-sections, said groove being provided at its lower end with a lateral extension 12. It will thus be seen that when the shaft-sections 1 and 2 are extended, as in Fig. 2 of the drawings, the sleeve 9 may be moved downwardly until the pin 10 engages the lateral extension 12 of the groove 11, when the said sleeve may be given a short axial twist, whereby the pin 10 shall be caused to enter the lateral extension 12 of groove 11, thus securing the shaft-sections in an extended position in alinement with each other, and thus arranging the spade in position for use. The lower shaft-section is provided with a circumferential collar 13, which limits the downward movement of the sleeve 9, so that there shall be no strain either upon the pin 10 or upon the lateral extension 12 of the groove in which said pin rides when the sleeve is moved downwardly. The upper end of the upper shaft-section, bearing the handle 3, is slightly bent in a rearward direction, while the lower end of the lower shaft-section, engaging the socket in the blade, is slightly bent

in a forward direction, as will be clearly seen in Fig. 2 of the drawings, thus imparting to the spade when extended for use a sigmoidal shape, which, as is well known, permits the tool to be more efficiently wielded. Its peculiar shape also enables the handle end of the device to fit neatly within the blade 5 when the device is folded, as seen in Fig. 3, thus permitting the device to be compactly folded in a convenient shape either for storage or for transportation.

When the members of the spade are halfway extended, as seen in Fig. 4, the device may be readily supported upon the ground, the joint-piece 7 being supported in a level position by the adjacent ends of the shaft-sections, which in this case protrude slightly above the edge of said joint-section, as shown at 14. When the device is placed in this position, it affords an excellent gun-rest, as will be readily understood.

It is obvious that the ends of the joint-piece and the abutting ends of the shaft-sections will be slightly rounded, as shown, respectively, in dotted lines at 15 in Fig. 4 and in full lines at 16 in Fig. 2, in order to enable the shaft members to be conveniently folded.

The operation of this invention will be readily understood from the foregoing description, taken in connection with the drawings hereto annexed.

The construction of the device is extremely simple and enables it to be manufactured at a moderate expense.

The spade is capable of being successfully used for any of the purposes for which a spade is ordinarily employed, while it has additional qualities not possessed by tools of this kind as usually constructed.

Having thus described my invention, I claim—

1. In a folding spade, an upper and a lower shaft-section provided respectively with a handle and with a blade, said shaft-sections being provided with notches at their adjoining ends, a link pivotally mounted in said notches, an angular groove in the adjoining ends of the shaft-sections, a sleeve slidably mounted upon the upper shaft-section and having a pin engaging said angular groove, and a collar upon the lower shaft-section limiting the downward movement of said sleeve.

2. In a folding spade, an upper and a lower shaft-section, a link-joint hingedly connecting said shaft-sections, said upper shaft-section having a rearwardly-bent handle portion and said lower shaft-section having a forwardly-bent blade portion.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

OLE SVENNUNGSEN HAUKVIK.

Witnesses:

JAK. JERVILL,

BJÖRN BUNKHOLD.