Dec. 1, 1959 W. E. MEAGHER 2,914,926

ICE FISHING GEAR

Filed April 12, 1957

Fig. 1

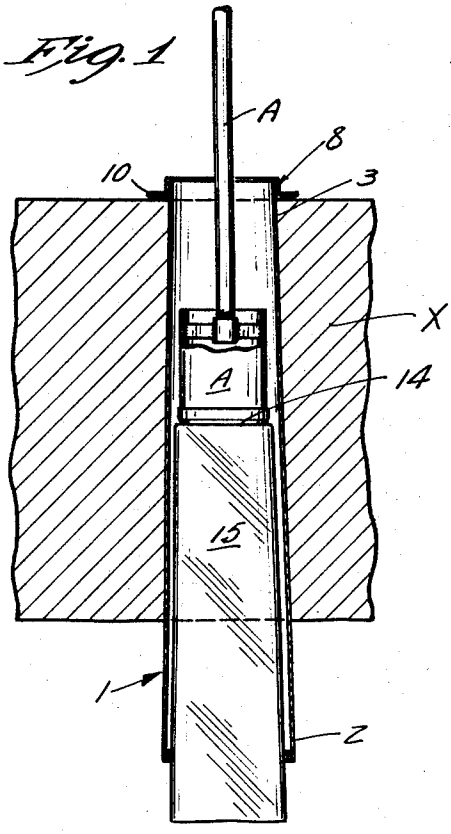


Fig. 2

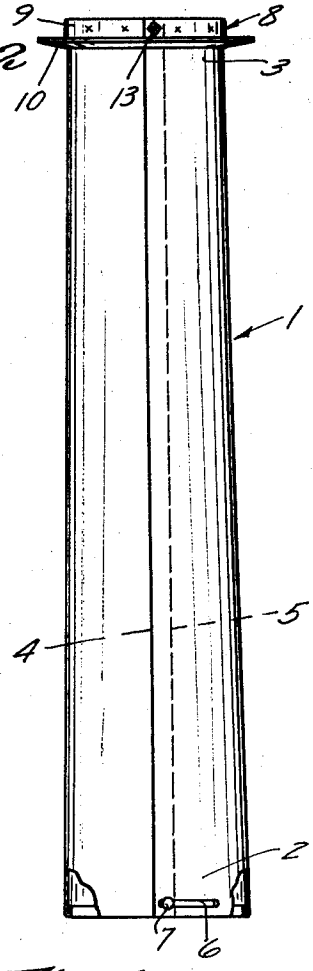


Fig. 3

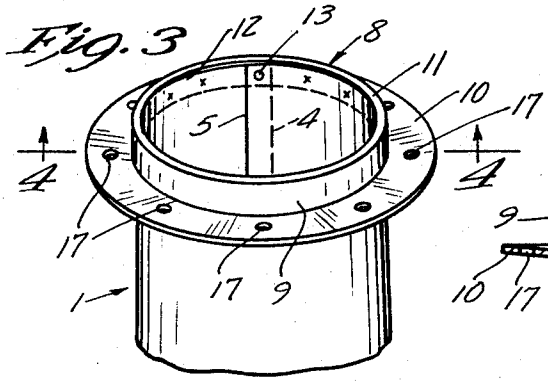


Fig. 4

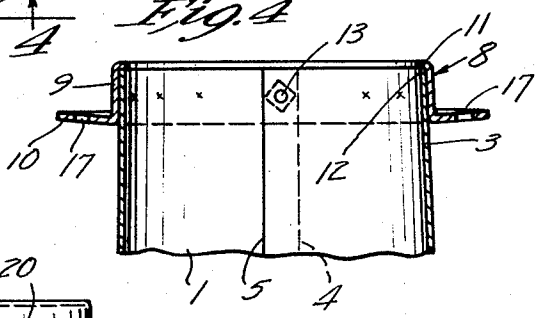
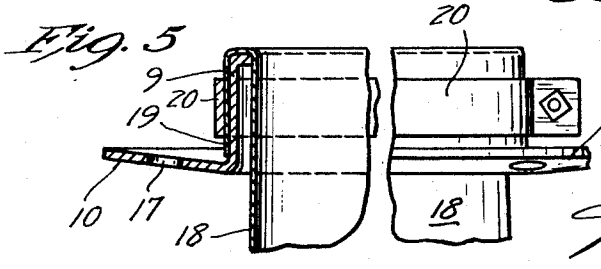


Fig. 5



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2,914,926

ICE FISHING GEAR

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2 Claims. (Cl. 62—355)

My invention relates generally to ice fishing gear and more particularly to apparatus for facilitating the reopening of an ice fishing hole after initial opening thereof and subsequent refreezing.

The primary object of my invention is the provision of an elongated tubular boot preferably formed from flexible resilient sheet metal and which tapers from its lower end to its reduced upper end and which is adapted to project completely through the layer of ice overlying a lake to be fished.

When such a boot is placed in an opening and subsequently refrozen therein, it is possible to remove the ice plug formed therewithin at a later date merely by the use of an impact tool inserted into the upper end and caused to forcibly engage the upper surface of the plug.

A further object of my invention is the provision of a device of the class above described wherein the smaller diameter upper end portion of the boot is provided with a supporting head which preferably comprises a circumferentially extended radially projecting foot-acting flange adapted to circumferentially overlie the ice immediately adjacent the hole and engage same at circumferentially spaced points.

A further object of my invention is the provision of a device of the class immediately above described wherein the boot is formed from a single sheet of flexible material, opposite side edges of which are in overlapping relationship and in further combination with means for securing the lower ends of the overlapped portions together for circumferential sliding movements relative to each other whereby to reduce the lower end portion of the boot for purposes of removing same from an aperture in which it has become frozen, after removal of the core or plug therefrom.

A further object of my invention is the provision of a device of the class immediately above described wherein the upper ends of the overlapped portions of said boot are pivotally secured together adjacent said head whereby to facilitate the sliding movements of the lower ends thereof.

A still further object of my invention is the provision of a device of the class described wherein said boot is formed from relatively inexpensive sheeting formed from disposable paper stock in combination with a reuseable supporting head, said supporting head comprising a tubular sleeve adapted to be inserted around the reduced upper end portion of said boot and within a downturned portion thereof, and in further combination with a clamping collar adapted to be inserted around the downturned portion of said boot whereby to clamp same rigidly to said sleeve.

A still further object of my invention is the provision of a device of the class immediately above described wherein the lower end portion of said sleeve is formed to provide an integral radially outwardly projecting unbroken foot-acting flange.

A still further object of my invention is the provision

of a device of the class above described which is extremely inexpensive to produce, which is extremely light in weight and which is foolproof in its operation.

The above and still further objects of my invention will become apparent from the following detailed specification, appended claims, and attached drawings.

Referring to the drawings wherein like characters indicate like parts throughout the several views:

Fig. 1 is a view in vertical axial section of my novel boot illustrating the method of removing an ice plug therefrom;

Fig. 2 is an enlarged view in side elevation of the structure of Fig. 1, some parts being broken away and some parts shown in section;

Fig. 3 is an enlarged fragmentary perspective view of the upper end portion of my novel structure as seen from the opposite side thereof.

Fig. 4 is a fragmentary view in section taken substantially on the line 4—4 of Fig. 3; and

Fig. 5 is a fragmentary view partly in side elevation and partly in vertical section of a modified form of my invention, some parts being broken away.

Referring with greater particularity to the preferred embodiment of Figs. 1 to 4 inclusive of the drawings, the numeral **1** indicates in its entirety an elongated tubular boot preferably formed from a single sheet of suitable metal and normally tapering from its lower end **2** to its upper end portion **3**. It will be noted that the opposite longitudinal edges **4**, **5** of the boot **1** loosely overlap so as to permit relative sliding movement therebetween. To facilitate this, the lower ends of the overlapped longitudinal edge portions **4**, **5** are provided with a pin-slot arrangement, the slot **6** being located in the latter and extending circumferentially thereof, and the headed pin **7** being carried by the former.

At its upper end portion **3**, the boot is provided with a supporting head **8** which comprises a tubular sleeve **9** and an integrally formed circumferentially extended radially projecting foot-acting flange **10**. It will be noted that the upper edge **11** of the tubular sleeve **9** is inturned so as to overlie and rest upon the upper edge **12** of the boot **1**. The upper end portion **3** of the boot **1** is secured to the inner surface of the sleeve **9** as by spot welding, care being taken to space the spot welding from the overlapped portions **4**, **5**. As shown, these overlapped portions **4**, **5**, within the sleeve **9**, are secured together by means of a nut-equipped pivot pin or bolt **13** which projects therethrough and through the sleeve **9**. By this novel arrangement, it should be obvious that the normally greater diameter lower end portion **2** of the boot **1** may be reduced for the purpose of removing same from a downwardly flaring ice hole into which it has become anchored. Obviously also this reduction in diameter of the lower end **2** may be useful in the event that the diameter of a recently chopped hole into which it is attempted to place the boot **1** is slightly less than the expanded diameter of the lower end portion **2** of the boot **1**.

Fig. 1 shows my novel structure after same has been inserted into a vertical opening through the ice and after ice has formed completely thereabout and therein. Note that the foot-acting flange **10** overlies and rests upon the ice X. Note that for the purpose of reuse, after any given lapse of time, it is but necessary to cause an impact tool A to engage the upper surface **14** of the plug **15** whereby to break same loose from the interior surface **16** of the boot **1**. Thereafter, the plug **15** is forced downwardly until it completely clears the lower end **2** of the boot **1**. In this manner, this particular boot may be used time after time, if desired. The circumferentially spaced apertures **17** in the foot-acting flange **10** permit ice to form therethrough, and hence facilitate anchorage.

Referring now to the modified form of Fig. 5, the boot **18** is formed from flexible paper stock or the like and is not designed for reuse. However, the boot **18** tapers from its lower end toward its upper as does the boot **1**, and hence permits the removal therefrom, as by impact tool A, of an upwardly tapering plug of ice **15** formed therewithin. To support the disposable boot **18** in operative position in an aperture in the ice X, the integrally formed tubular sleeve **9** and foot-acting flange **10** may be utilized. As there shown, a downturned upper end portion **19** of the boot **18** is caused to encompass the sleeve **9** and a clamping collar **20** caused to overlie the downturned portion **19** and clamp same to the sleeve **9**. Obviously, after each use, the tubular sleeve **9** and clamping collar **20** are removed for reuse.

My invention has been thoroughly tested and found to be completely satisfactory for the accomplishment of the above objects; and, while I have shown a preferred embodiment thereof, it should be understood that same is capable of considerable modification without departure from the scope and spirit of the appended claims.

What I claim is:

1. In a device of the class described, an elongated tubular boot, said boot being formed from a single sheet of flexible material and adapted to be inserted into an opening in the ice, said boot normally tapering from its relatively large lower end to its relatively small upper end and having its opposite side edges in overlapping relationship, an annular supporting head secured to the smaller diameter upper end portion of said boot, said head comprising a circumferentially extended foot-acting flange adapted to overlie and engage the top surface of the ice immediately adjacent said opening at circumferentially spaced points thereabout and an integrally formed upstanding tubular collar telescopically receiving the upper end of said boot, and means for securing the lower ends of the overlapped portions together for circumferential sliding movements relative to each other to permit contraction of the lower end portion of said boot to a diameter not in excess of the diameter of said upper end portion thereof.

2. In a device of the class described, an elongated tubular boot formed from flexible sheet paper stock, said boot being adapted to be inserted into an opening in the ice and normally tapering from its relatively larger diameter lower end to its relatively smaller diameter upper end, a supporting head secured to the relatively smaller diameter upper end portion of said boot, said head comprising a tubular collar telescopically receiving the upper end portion of said boot, and an integrally formed radially projecting circumferentially extended foot-acting flange adapted to overlie and engage the top surface of the ice immediately adjacent said opening at circumferentially spaced points thereabout, the upper end portion of said boot including a downturned portion which overlaps said collar, and a clamping band extending about said downturned portion and rigidly clamping said boot to said tubular collar.

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