

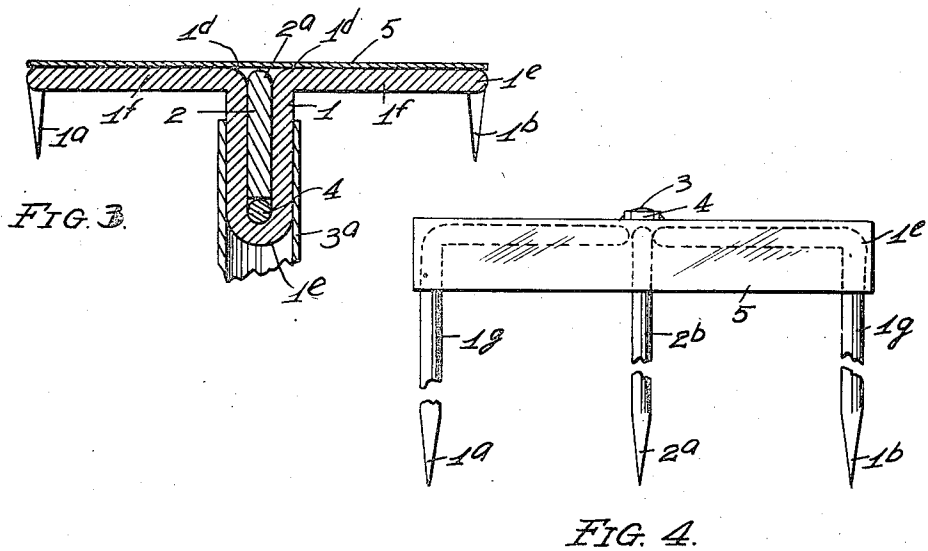
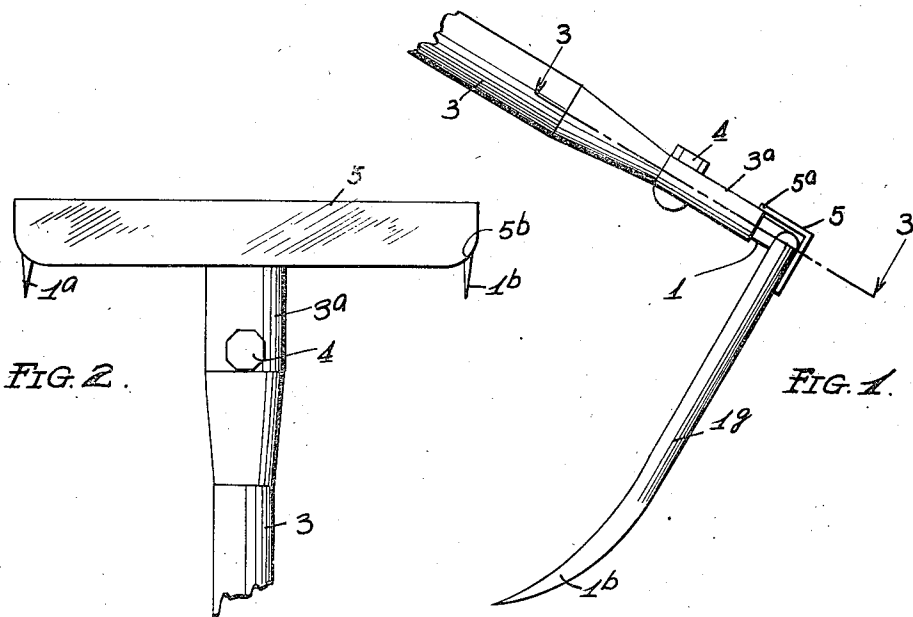
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METAL HOOK

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METAL HOOK

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My invention relates to a metal hook and the objects of my invention are:

First, to provide a hook device adapted to function either as a rake when the tool is used to pull material or as a pusher when the tool is used to scrape or push material as along a floor;

Second, to provide such a device particularly adapted for use in handling scrap metal but also useful for many like purposes;

Third, to provide such a device designed for extreme ruggedness and durability;

Fourth, to provide such a device with an easily demountable head or working portion to facilitate repair or replacement thereof or the substitution of a handle of different construction or length;

Fifth, to provide such a device with a novel improved shank construction, prongs formed from bar stock, a novel shank locking device and a novel reinforcing angle bar which also adapts the tool as a scraper, and

Sixth, to provide such a tool which is simple and practicable to manufacture, convenient and effective in use and durable in service.

With these and other objects in view as will appear hereinafter, my invention consists of certain novel features of construction, combination and arrangement of parts and portions as will be hereinafter described in detail and particularly set forth in the appended claims, reference being had to the accompanying drawings and to the characters of reference thereon which form a part of this application in which:

Figure 1 is a side elevational view of my invention with part of the handle portion broken away and showing the relationship of the parts of my invention; Fig. 2 is a fragmentary top plan view of the structure shown in Fig. 1; Fig. 3 is a sectional view of the same structure taken from the line 3—3 in Fig. 1; Fig. 4 is an elevational view of my invention taken from the front of the device or the right hand side of Fig. 1, with the handle portion disposed horizontally.

Similar characters of reference refer to similar or identical parts and portions throughout the several views:

A double prong member 1, single prong 2, handle 3, bolt 4 and angle bar 5 constitute the principal parts and portions of my invention.

A double prong member 1 of bar stock, the two ends of which are sharpened to form the hook points 1a and 1b, is bent at the center through three hundred and sixty degrees as at 1c leaving a space between the two portions thus formed into a shank portion. Each arm is oppositely bent

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through ninety degrees in the same plane and again bent through ninety degrees in a plane normal to the plan of the other bends, thus producing symmetrical laterally extending portions 1f and depending portions 1g terminating in the inwardly turned points 1a and 1b.

A single prong 2 of similar bar stock is welded or brazed to the double prong member 1 and occupies the major portion of the space between the two portions of the shank portion thereof referred to above. This single prong terminates in a sharpened point 2a and is hooked or inwardly turned similarly to the points 1a and 1b and this single prong will normally be of the same length as the laterally disposed prongs, a ninety degree bend therein at 2a and the depending portion 2b corresponding to the bends 1c and the depending portions 1g of the lateral prongs.

A handle 3 will preferably be of tubular metal construction and has a terminal flattened portion 3a adapted to receive the shank portion 1 which should fit snugly with the flattened portion 3a. To maintain this tight connection, I provide a bolt and nut 4, the bolt being entered through holes drilled in the flattened portion 3a to register with the bend 1c as indicated best in Fig. 3. It is preferred that the end of the single prong 2 should be of correct length to approach the said bend 1c close enough to contact this bolt 4 in assembled position in order that maximum rigidity of construction be achieved. This bolt 4 may be equipped with any suitable locking device to assure that the nut thereon will not loosen during the use of the tool, or a rivet may be substituted for this bolt if preferred.

An angle bar 5 of a length approximating the span of the lateral prongs 1g is welded or brazed to the portions 1f and 2b and, if preferred, to the shank portion 1 and the portion 2a to give reinforcement to these parts and also to provide a scraper or pusher which may be employed by inverting the tool so that the flat surface of the angle bar may be made to contact the floor along which it may be desired to push material being handled. It should also be noted that the edge 5a of the angle bar may be arranged to overlap and tightly contact the end of the flattened portion 3a of the handle 3, thus adding rigidity to the assembly. The corners of the angle bar 5 may be rounded as at 5b.

In use my invention will be employed as a rake when a pulling action is required, the sharp hooked points 1a, 1b, and 2a facilitating the selection of portions of material to be handled. The strong construction of the device makes it

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ideal for sorting and moving metal scrap parts or the like. When such material is of lighter character and it is desired to move the same along a flat surface such as a floor of a truck or warehouse the tool may be inverted and angle bar 5 used as a pusher or scraper. The rounding of the corners of the angle bar 5 as at 5b helps to prevent this bar from catching on material which may be positioned above the material sought to be selected.

Though I have shown and described a particular construction, combination and arrangement of parts and portions, I do not wish to be limited to this particular construction, combination and arrangement but desire to include in the scope of my invention the construction, combination and arrangement substantially as set forth in the appended claims.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:

1. In a device of the character described, in combination, a tubular handle, a double prong member formed from bar stock by bending the same through three hundred and sixty degrees at the center thereof to form a shank portion rigidly securable in an end of said handle, oppositely bending the two ends of said bar stock through approximately ninety degrees to produce laterally extending portions and bending the said laterally extending portions through ninety degrees in a plane normal to a plane through said shank portion and extending portions to provide depending prongs, the whole device being symmetrical about a line through said handle and shank portion and an angle bar secured to said prongs adapted to reinforce said prongs and to adapt the device for use as a pushing tool.

2. In a device of the character described, in combination, a tubular handle, and a double prong member formed from bar stock by bending the same through three hundred and sixty degrees at the center thereof to form a shank portion rigidly securable in an end of said handle, oppositely bending the two ends of said bar stock through approximately ninety degrees to produce laterally extending portions and bending the said laterally extending portions through ninety degrees in a plane normal to a plane through said shank portion and extending portions to provide depending prongs, the whole device being symmetrical about a line through said handle and shank portion, a single prong rigidly

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secured to said shank portion and bent through approximately ninety degrees to provide a central prong similar to said laterally disposed prongs and an angle bar secured to said prongs adapted to reinforce said prongs and to adapt the device for use as a pushing tool.

3. In a device of the character described, in combination, a tubular handle, and a double prong member formed from bar stock by bending the same through three hundred and sixty degrees at the center thereof to form a shank portion rigidly securable in an end of said handle, oppositely bending the two ends of said bar stock through approximately ninety degrees to produce laterally extending portions and bending the said laterally extending portions through ninety degrees in a plane normal to a plane through said shank portion and extending portions to provide depending prongs, the whole device being symmetrical about a line through said handle and shank portion, a single prong rigidly secured to said shank portion and bent through approximately ninety degrees to provide a central prong similar to said laterally disposed prongs, and an angle bar rigidly secured to said laterally disposed portions.

4. In a device of the character described, a tubular handle, a double prong member having a central flat loop constituting a shank insertable within an end of said tubular handle, a bolt securable through said handle and loop to lock said shank within the handle, a single prong having an attachment portion rigidly secured to and within said loop, and an angle bar secured to said prongs and to said shank.

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REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
334,551	Wawrinsky	Jan. 19, 1886
664,601	Anderson	Dec. 25, 1900
654,645	Keiller	July 31, 1900
1,045,263	Cronk	Nov. 26, 1912
1,515,975	Smith	Nov. 18, 1924

FOREIGN PATENTS

Number	Country	Date
172,632	Switzerland	Jan. 16, 1935
219,040	France	Jan. 30, 1892