

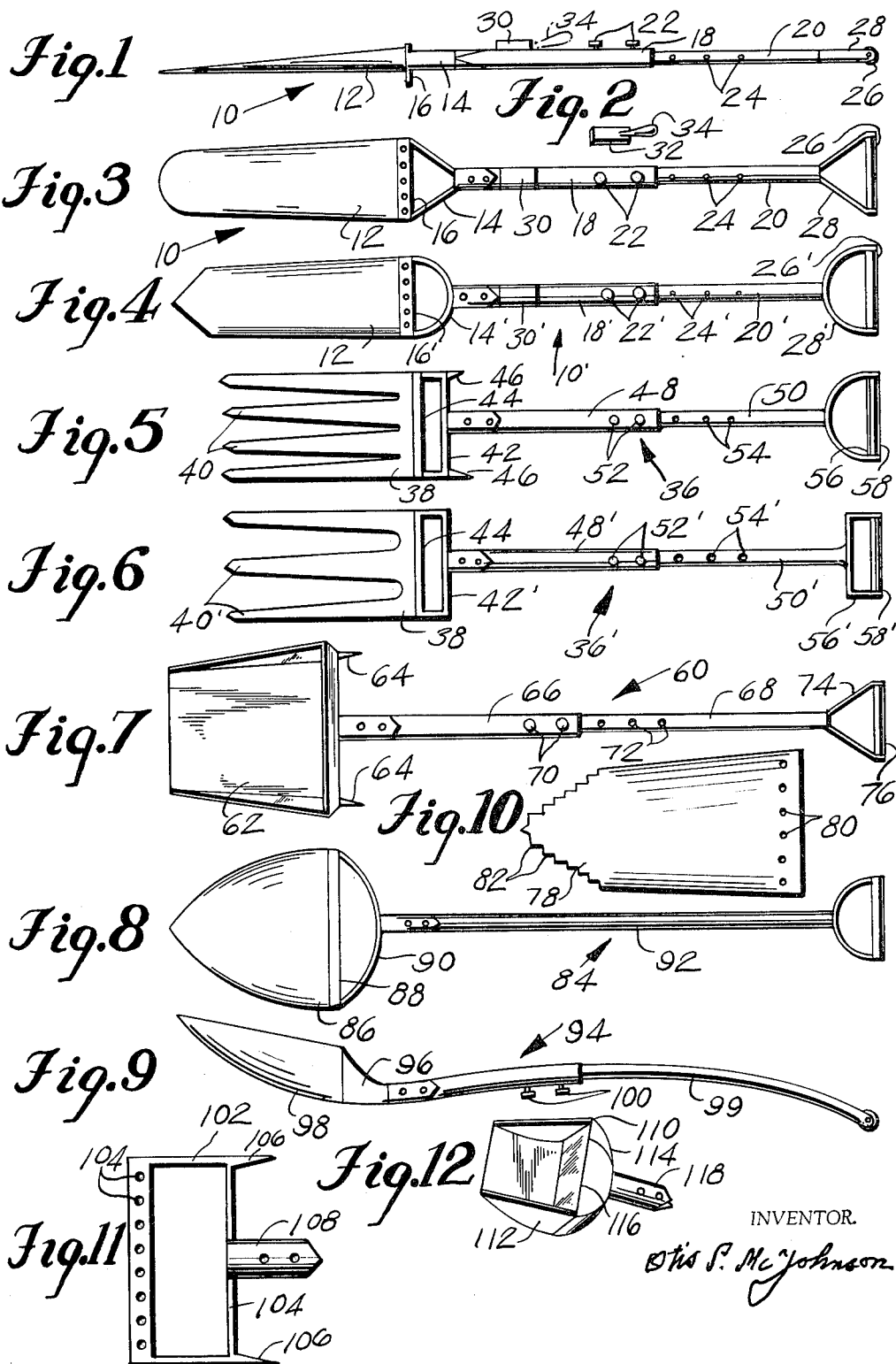
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SPADE, SHOVEL AND SPADING FORK

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SPADE, SHOVEL AND SPADING FORK
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This invention relates to hand tools, and more particularly to improved hand tools for digging and the like.

It is an object of the present invention to provide an improved spade, shovel and spading fork for use in agriculture, gardening, road making and building construction which will save the owner time and money by being easier to handle than the conventional tool and will require less effort in use.

Another object of the present invention is to provide an improved hand tool which will allow the worker to place his foot in the center of the upper extremity of the working component of the tool where it will be held safely and securely without slipping off when driving the spade or spading fork into the ground.

A further object of the present invention is to provide an improved hand tool or tools which will have guard means to keep the workman in balance while driving the tools into the ground, even when the foot used to drive the tool is wet or muddy.

A still further object of the present invention is to provide an improved hand tool which will have an adjustable telescoping handle to afford means for changing the length of the handle to suit the dimensions of the user and which will make the workman more comfortable.

Other objects of the invention are to provide an improved hand tool bearing the above objects in mind which is of simple construction, has a minimum number of parts, is inexpensive to manufacture and efficient in operation and use.

For other objects and for a better understanding of the invention, reference may be had to the following detailed description taken in conjunction with the accompanying drawing, in which:

FIGURE 1 is a side elevational view of a spade comprising the present invention with a mud scraper shown in phantom lines;

FIGURE 2 is a perspective view of the mud scraper shown removed from FIGURE 1;

FIGURE 3 is a front view of FIGURE 1;

FIGURE 4 is a front view showing a modified form of spade;

FIGURE 5 is a front view of a spading fork;

FIGURE 6 is a front view of a modified form of FIGURE 5;

FIGURE 7 is a front view showing a modified form of the invention in the configuration of a shovel;

FIGURE 8 is a front view of a modified form of FIGURE 7;

FIGURE 9 is a side elevational view showing a modified form of shovel;

FIGURE 10 is a plan view showing a modified form of spade blade;

FIGURE 11 is a front view of a foot rest member providing mounting means for a handle and blade of the invention; and

FIGURE 12 is a perspective view showing a modified form of scoop shovel with the handle shown removed.

Referring now more in detail to the drawing, a tool 10 made in accordance with the present invention is shown to include a spade shaped blade 12 which is fixedly secured to a V-shaped member 14 which is provided with a foot rest 16 to allow easy driving of the spade-shaped blade 12 into the ground. A hollow, elongated sleeve 18 is secured within the upper extremity of V-shaped mem-

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ber 14 at one end and telescopically receives elongated sleeve 20 which is securely held in position by means of a pair of screws 22 which are received within any pair of a plurality of openings 24 transversely through sleeve 20. A pivotable handle grip 26 is pivotably received between V-shaped end 28 of sleeve 20 to provide handle grip means for the worker to grip and control tool 10. A hollow pocket member 30 is secured to sleeve 18 and provides a means for freely receiving a scraper 32 of rectangular configuration having a handle 34. Scraper 32 provides means for removing mud.

It shall be understood that spade blade 12 may be riveted or welded to V-shaped member 14.

In FIGURE 4, a modified form of hand tool 10' is shown to include an arrow-shaped spade blade 12' secured to a semi-circular member 14'. A foot rest 16' on the upper extremity of spade blade 12' provides foot rest means for driving spade blade 12' into the ground and member 14' prevents the shoe from sliding. A sleeve 18' is secured to member 14' and the sleeve 20' is telescopically received within sleeve 18'. A spaced apart pair of screws 22' provide adjustment means for telescoping sleeves 18' and 20' and are received within openings 24'. A pivotable handle grip 26' is pivotably received by semi-circular hand guard 28' to provide means for gripping tool 10'.

In FIGURE 5, a modified form of hand tool 36 is shown to include a spading fork member 38 having a plurality of spaced apart tapered fingers 40. A hollow, rectangular member 42 is provided with an internal foot rest 44 and either side of the upper extremity of member 42 provides a pair of external foot rests for urging fingers 40 into the soil. A pair of projections 46 extending from member 42 provide means for preventing the worker's foot from slipping off member 42 when urging fingers 40 of spading fork 38 into the soil, and the hollow sleeve 48 is fixedly secured to member 42 and telescopically receives a hollow sleeve 50. A pair of spaced pair screws 52 provide adjustment means for the length of the handle formed by sleeves 48 and 50 and are received within spaced apart openings 54 of sleeve 50. A semi-circular guard 56 is secured to the end of sleeve 50 and pivotably receives a handle grip 58.

In FIGURE 6, a modified form of tool 36' is provided with a spading fork 38' having a plurality of fingers 40' for working in the soil. A hollow, rectangular member 42' provided with an internal foot rest 44' allows foot pressure to be applied the central axis of tool 36'. A hollow sleeve 48' receives hollow sleeve 50' and adjustment means for the length of the handle formed by sleeves 48' and 50' provided for by screws 52'. A handle guard of rectangular configuration 56' is fixedly secured to one end of sleeve 50' and receives a pivotable handle grip 58'.

In FIGURE 7, a modified form of handle tool 60 is shown to include a shovel member 62 having spaced apart projections 64 along its upper extremity prevent the workman's foot from slipping when urging downwardly against shovel 62, and a sleeve 66 is fixedly secured to the upper extremity of shovel 62 and a hollow sleeve 68 is telescopically received within sleeve 66. A pair of spaced part screws 70 provide adjustment means for sleeves 66 and 68 by being received within any of a plurality of openings 72 of sleeve 68. A V-shaped handle guard 74 is fixedly secured to one end of sleeve 68 and is provided with a pivotable handle grip 76.

In FIGURE 10, a modified form of spade blade 78 is shown to have a plurality of spaced apart openings 80 which provide a means for securing it to a handle member (not shown). Spade blade 78 is provided with a plurality of teeth 82 which allows it to be used to cut stubborn roots while spading and providing a tool for efficient job around trees in gardens and spade blade 78 is made

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of stainless steel or other suitable material to prevent the teeth 82 from deteriorating from rust.

A modified form of shovel 84 is shown to have a spear-shaped concave shovel member 86 and a foot rest 88 internal of an arched member 90 which is fixedly secured to a handle 92.

In FIGURE 9 a modified form of hand tool 94 is shown to include a foot guard 96 and a scoop-type blade 98 and a telescoping handle 99 which is adjustable by means of screws 100.

In FIGURE 11 a rectangular member 102 is provided with a plurality of spaced apart openings 104 which allow member 102 to be secured to a spade, spading fork or a shovel blade, and the workman's foot is received within member 102 or is received along its upper extremity between projections 106 and an extension 108 which provides a means for receiving the handle.

In FIGURE 12, a shovel 110 is provided with a pair of parallel sides 112 and an arcuate hollow member 114 which provides guard means for the foot which is received upon foot rest 116 which is the upper extremity of shovel 110, and an extension 118 projecting centrally from member 114 provides a means for securing shovel 110 to a handle.

It shall be noted that one or many of the features heretofore described may be used in any combination for hand tools such as shovels, spades, and spade forks.

It shall further be noted that when pressure is applied by a workman with his foot upon the central area of the footrest, less effort will be exerted and far less discomfort will result to the workman's foot when applying foot pressure upon the tool heretofore described.

It shall also be recognized that the telescoping handles may be made of various materials having sufficient strength for the task and the shovel blades may be coated with vinyl or any other polymeric compound for handling acids or other harmful material.

While various changes may be made in the detail construction, it shall be understood that such changes shall be within the spirit and scope of the present invention as defined by the appended claims.

What I claim as new and desire to protect by Letters Patent of the United States is:

1. A hand tool comprising in combination a spade member and a handle therefor, a central footrest carried by said spade member adapted for a workman's foot to

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apply pressure along a central axis of the tool, a foot guard member carried by said spade member for encompassing the workman's foot to prevent it from slipping, a pair of telescoping sleeves carried by said tool for adjusting the length of said handle, a mud scraper of generally rectangular configuration carried by one of said sleeves adapted for removing mud from the workman's shoes or from a blade portion of said tool, said spade member being secured to said footrest, said footrest encompassing said foot guard member above said footrest to prevent the workman's shoe from slipping from said footrest, said footrest being internal of said foot guard member to allow pressure to be direct when urging said spade member into soil, said foot guard member having a hollow extension, said extension receiving a hollow end of a first sleeve which telescopically receives a second smaller diameter sleeve to provide handle means for said tool, rectangular pocket means secured to said sleeve on said first sleeve, said pocket means receiving said scraper which is provided with a handle for ease in manipulation thereof, a pair of mounted and spaced apart screws received within said first sleeve for adjusting the length of the handle and of said telescoping sleeves, a plurality of openings within said second sleeve threadedly receiving said screws, and an open extension secured to said second sleeve with a pivotable handle grip for the workman to grasp when using said tool.

2. The invention of claim 1 wherein said spade has a blade of a concave tapered contour having a plurality of teeth for cutting roots in the soil when said blade is urged downwardly within said soil.

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