INVENTION DISCLOSURE

1. Title of the Invention:

2. Inventor:

3. Circumstances and Date of Conception:

On 13 July 1994 I was planting a tree in my back yard. In order to plant the tree I had to dig a rather large hole. It was a hot summer and the soil was very hard. It was therefore difficult to force the blade of the shovel into the ground. I tried using my foot to step down on the shoulder of the shovel blade, however I was wearing tennis shoes and pressing down upon the narrow shoulder hurt the arch of my foot. I thought what if I had a pedal attachment that could be connected to the top of the shovel blade. The pedal would have a large surface area so that it would not hurt my foot as I forced the blade into the soil.

4. Description of the Invention:

a. Purpose - My digging aid is used to help in the digging of a hole in the ground, particularly when the soil is hard.

b. Drawings - My invention and how it attaches to a shovel is shown in FIGURE 1.

c. Description of the Parts - My digging aid is for use with a conventional shovel having a shovel blade, a socket, and a handle inserted into the socket. The digging aid consists of a sleeve which has a pedal against which foot pressure may be applied. The sleeve fits around the socket of the shovel and is retained in place by a U-bolt.

d. Use - The digging aid is removably attached to the socket of the shovel blade directly above the shoulder of the blade. The attachment is made by a U-bolt which connects around the socket of the shovel and holds the sleeve of the digging aid firmly against the socket. The user then uses his or her foot to press down upon the pedal of the digging aid to force the blade of the shovel into the soil. The foot can be placed on the right side of the socket, on the left side of the socket, or the foot can be turned so that the entire foot lays along the pedal.

e. Novel Features - I have looked in hardware stores and in various garden supply catalogs, and can nowhere find a product similar to mine. I did find one device which attaches to the shoulder of the shovel, however this product had a very small surface area, and is quite difficult to attach. I believe that my invention has the following novel features which are not disclosed in the prior art:

- it is easily connected to or removed from the shovel by a simple U-bolt;

- the sleeve of my digging aid is contoured to the neck of the shovel to ensure a close tight fit;
- it has a large surface area so that it is easy to engage with a foot;
- the pedal has friction 'bumps' so the foot will not slip off;
- the pedal has holes so that mud or dirt can be pressed off of the surface thereby providing a better grip; and,
- the pedal is angled so as to be perpendicular to the blade of the shovel.

f. Advantages - My invention fits virtually fits any shovel, is easy to install, and greatly reduces the amount of work required to dig a hole. It is made of galvanized or stainless steel, and therefore will not rust. No prior art device provides the novel features and results listed in e. above.

5. Testing Results:

On 15 August 1994 I tested a prototype version of my digging aid. I found that by using my invention, the blade of the shovel could penetrate approximately 8 inches of hard soil. Without my invention, only a 5 inch penetration could be achieved by applying foot pressure to the shoulder of the shovel blade.

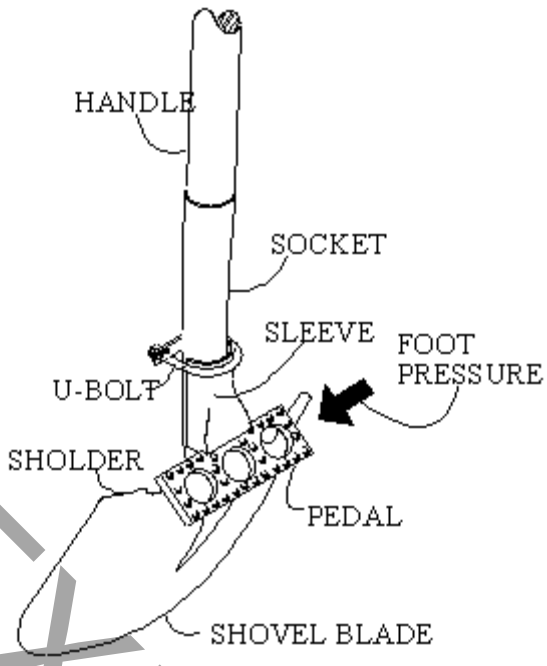
Robert Fontaine _____ Date_____

WITNESSED AND UNDERSTOOD:

_____ Date_____

_____ Date_____

FIGURE 1.


HANDLE
SOCKET
SLEEVE
FOOT
PRESSURE
U-BOLT
SHOLDER
PEDAL
SHOVEL BLADE