

July 31, 1951

W. H. COBI

2,562,860

SHOE OR TIP FOR WOODEN PILES

Filed April 19, 1947

Fig. 1

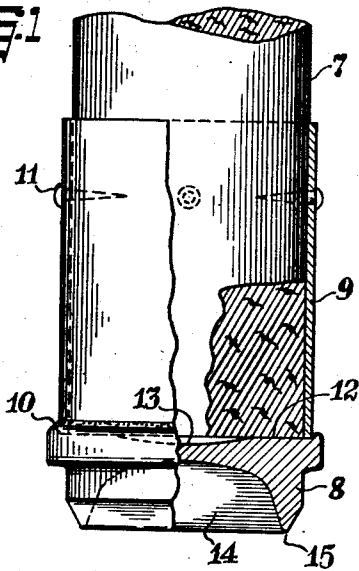


Fig. 2

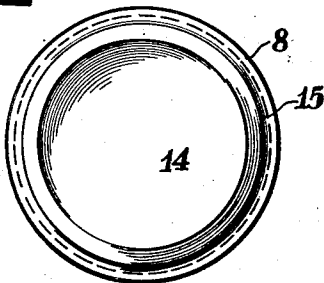


Fig. 3

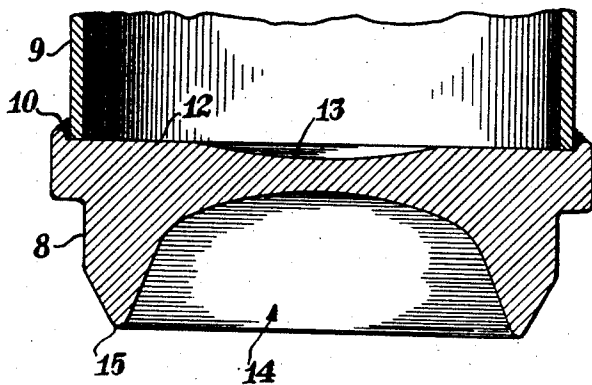


Fig. 4

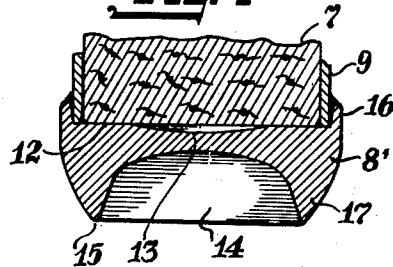


Fig. 5

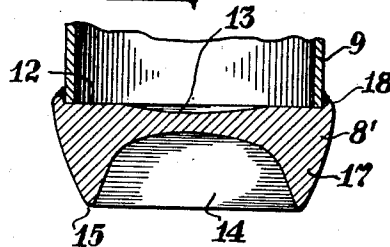
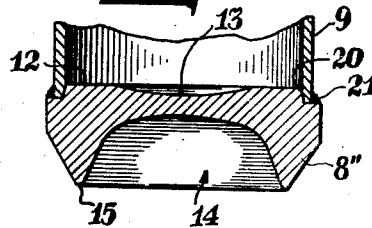


Fig. 6



INVENTOR.
WALTER H. COBI

BY

R. S. McGee
ATTORNEY

UNITED STATES PATENT OFFICE

2,562,860

SHOE OR TIP FOR WOODEN PILES

Walter H. Cobi, New York, N. Y., assignor of one-half to John J. Dougherty, St. Albans, N. Y.

Application April 19, 1947, Serial No. 742,715

2 Claims. (Cl. 61—53)

1

This application is an improvement of my application #620,105, filed October 3, 1945, now Patent No. 2,421,993, dated June 10, 1947.

One object is to provide an effective shoe for wooden piles which can be readily applied at moderate cost.

I have especially sought to provide a shoe which will protect the end of the pile and enable it to be driven straight.

Another object is to provide a shoe which will furnish a maximum bearing effect.

To accomplish these objects, I provide a special metal casting or forging to which a metallic sleeve or tubular extension is attached. The end of the pile fits within this sleeve and bears upon the upper face of the shoe around the center thereof. The lower face of the shoe has a dome-like recess, the lower wall of which terminates in a wedge-like cutting edge beneath the bearing area of the upper face. The sleeve can be fixed to the shoe in various ways as shown in the accompanying drawing.

Fig. 1 is a side view and partial section on a small scale of the end of a pile with a shoe attached.

Fig. 2 is a view of the lower face of the shoe.

Fig. 3 is a vertical sectional view of the shoe on a larger scale.

Figs. 4, 5 and 6 are sectional views showing modifications of the shoe and sleeve.

The pile 7 rests upon the shoe 8 and the two are connected by the sleeve 9. The sleeve is preferably formed of metal and secured for instance by welding at 10 around the rim of the shoe. It may be spiked to the pile at 11. The sleeve reinforces and prevents spreading of the end of the pile.

The upper face of the shoe has an annular bearing seat 12 on which the pile rests. By hollowing out the face of the shoe at 13 I assure a uniform bearing around it. The shoe has a dome-shaped recess 14, the wall of which, at its lower end, terminates in a cutting edge 15 directly beneath the central part of the pile bearing seat 12 so that the thrust of the pile is directly applied to the cutting edge. The arched wall of the dome-shaped recess draws in the soil and compresses it toward the axis of the pile.

The shape of the shoe is designed to secure a maximum strength with a minimum weight of metal.

In Fig. 4 the outer edge of the shoe 8' is provided with a flange 16 to frictionally receive the lower end of the tubular sleeve 9. This also shows a somewhat modified cross section 17 of the cutting element. The sleeve however may be welded along the rim inside of the flange 16 or at its edge.

In Fig. 5 I have shown a similar cross section 17 of cutting element and a shallow rib 18 to

2

serve as a base for welding the sleeve to the shoe 8'.

Fig. 6 shows another modification of the shoe in which the sleeve 9 is set on a shoulder 19 in the shoe 8'' and welded to the rim 20 by material 21 deposited at the lower outer end of the sleeve.

It will be understood that in each instance the shoe has a bearing seat for the wooden pile so that the pressure of the pile on the shoe is so distributed that there is no danger of the shoe being distorted or tilted in driving the pile.

The sleeve not only prevents the spreading of the end of the pile but ensures adequate connection of the shoe to the pile in handling and driving.

I claim:

1. A shoe for a wooden pile comprising a solid rigid body, the bottom face of said body being formed with a central arch-shaped recess, the side surface of the body being tapered at its lower end and terminating in an annular cutting edge, the upper end of the body being formed with an upstanding peripheral flange, the top face of the body, within said flange, being flat with a central dished portion above said recess, said flat face portion adapted to receive the end of a wooden pile so that the main thrust of the pile is directed through the body on a line through the cutting edge thereof.

2. A shoe for a wooden pile comprising a solid rigid body, the bottom face of said body being formed with a central arch-shaped recess, the side surface of the body being tapered at its lower end and terminating in an annular cutting edge, the upper end of the body being formed with an upstanding peripheral flange, the top face of the body, within said flange, being flat with a central dished portion above said recess, a sleeve seated on said flat top face portion and secured to the upstanding flange for fittingly receiving and uniformly seating the end of a wooden pile on said flat top face around the dished portion thereof so that the main thrust of the pile is directed through the body on a line through the cutting edge thereof.

WALTER H. COBI.

REFERENCES CITED

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

UNITED STATES PATENTS

Number	Name	Date
1,609,670	Stein	Dec. 7, 1926
2,421,993	Cobi	June 10, 1947

FOREIGN PATENTS

Number	Country	Date
748,669	France	1933