B. BROWNSTEIN.

HAND PLOW.

APPLICATION FILED MAY 10, 1916.

1,202,792. Patented Oct. 31, 1916.

Fig. 1

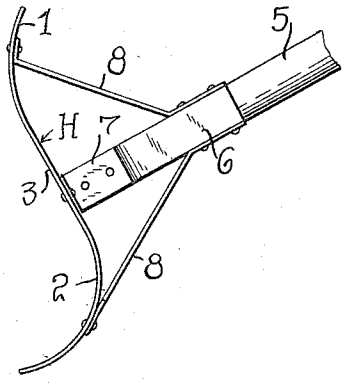


Fig. 2

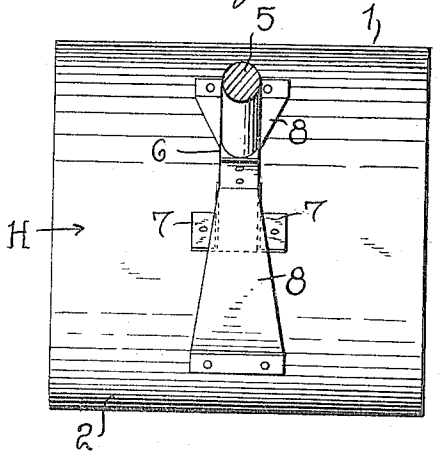


Fig. 3

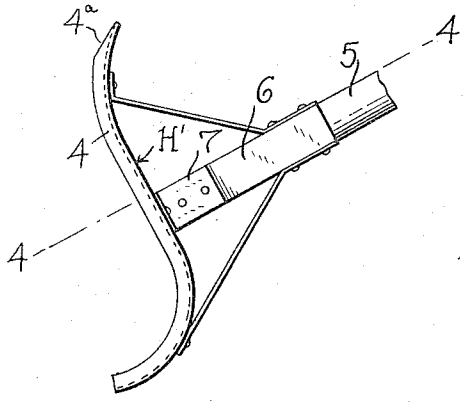
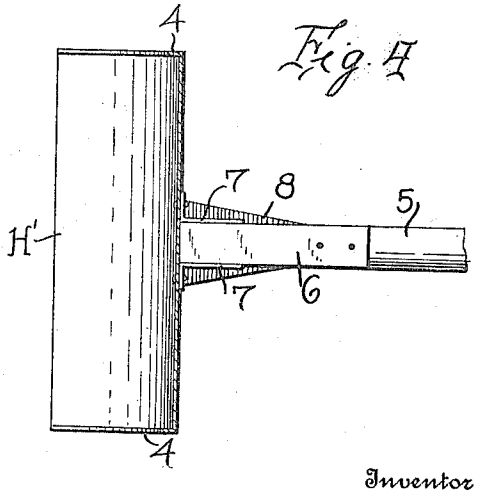


Fig. 4



Inventor

BENJAMIN BROWNSTEIN

By Watson E. Coleman

Attorney

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

BENJAMIN BROWNSTEIN, OF ELLWOOD CITY, PENNSYLVANIA.

HAND-PLOW.

1,202,792. Specification of Letters Patent. Patented Oct. 31, 1916.

Application filed May 10, 1916. Serial No. 96,686.

To all whom it may concern:

Be it known that I, BENJAMIN BROWNSTEIN, a citizen of the United States, residing at Ellwood City, in the county of Lawrence and State of Pennsylvania, have invented certain new and useful Improvements in Hand-Plows, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to certain improvements in hand plows and has relation more particularly to a device of this general character especially designed and adapted for use in connection with snow or other loose material; and it is an object of the invention to provide a novel and improved device of this general character which may be employed as a forward or backward plow and shovel.

It is also an object of the invention to provide a device of this general character which may be employed with equal facility in connection with unobstructed surfaces or in connection with corners, steps, or other locations which are generally difficult to work.

The invention consists in the details of construction and in the combination and arrangement of the several parts of my improved plow whereby certain important advantages are attained and the device is rendered simpler, less expensive and otherwise more convenient and advantageous for use, all as will be hereinafter more fully set forth.

The novel features of the invention will hereinafter be definitely claimed.

In order that my invention may be the better understood, I will now proceed to describe the same with reference to the accompanying drawings, wherein—

Figure 1 is a view in side elevation of a plow constructed in accordance with an embodiment of my invention, the operating handle being shown in section; Fig. 2 is a rear elevational view of the device as disclosed in Fig. 1; Fig. 3 is a side elevational view illustrating a plow constructed in accordance with a further embodiment of my invention; and Fig. 4 is a sectional view taken substantially on the line 4—4 of Fig. 1.

As disclosed in Figs. 1 and 2 of the accompanying drawings, H denotes the head of my improved plow which is preferably formed of sheet metal and is bent longitudinally at one end portion to afford a short arc 1 extending rearwardly and its opposite end portion bent longitudinally to afford a long arc 2 disposed forwardly. The portion 3 of the head H is substantially straight.

In the form of invention illustrated in Figs. 3 and 4, the head H′ is substantially the same construction as the head H except that the longitudinal or side margins thereof are bent to afford the forwardly directed flanges 4 in order to materially reinforce or strengthen the head.

5 denotes an operating handle of predetermined dimensions and having one end bearing against the rear face of the head H at substantially the center of the intermediate or straight portion 3, and said end portion of the handle 5 is angular in cross section, as indicated at 6.

Coacting with opposed faces of the angular portion 6 are the brackets or clips 7 preferably L-shape in form and which are suitably secured to the head whereby the handle 5 is effectively secured to the head.

I also have found it of advantage to interpose between the opposed end portions of the head H or H′ and the handle 5 or more particularly the angular portion 6 thereof, the braces 8 which, as herein disclosed, comprise flat and relatively wide strips of metal having their forward ends secured to the head H or H′ at substantially the center of the arcuate portions 1 and 2.

It will be self-evident that by the use of the braces 8 the working edges of the head H are given rigidity as it is to be observed that the outer ends of the braces are connected to the head H as close to the working edges as practical conditions will allow, while the opposite ends of the braces are connected to the handle far enough away from the head as to have the brace connecting with the long working arc serve as a strut or compression member and take all the thrust that is produced on the working edge of the head H when the plow is moved forwardly, whereby the head is prevented from bending at the point where the handle is butted against the head and also from straightening out. The second brace 8 attached to the short working arc serves as a tension member and takes all the pull that is produced through the working edge of the head H when pulled and also keeps the plate from straightening out and bending at the handle support. The use of the braces 8 also permits the head H

to be made of relatively thin material and which is of especial importance in production.

The end of the head defined by the arcuate portion 2 is employed on straight paths or other unobstructed surfaces, while the opposite end portion is employed in connection with corners, steps or other locations which are generally difficult to work.

It is to be noted in Fig. 3 that the end portions of the flanges 4 adjacent the short arc are inwardly beveled or cut at an angle to said arcuate extremity. This is done to prevent the flanges 4^a offering any obstruction to the effective use of the short arc end of the head H'.

It is also to be observed that the longitudinal margins of the braces 8 converge in a direction toward the handle 5 or more particularly the angular portion 6 thereof, and it is to be further observed that the connected extremities of the braces are angularly disposed with said angular portions rigidly connected to the head and handle.

From the foregoing description, it is thought to be obvious that a plow constructed in accordance with my invention is of an extremely simple and comparatively inexpensive nature and is particularly well adapted for use by reason of the convenience and facility with which it may be assembled, and it will also be obvious that my invention is susceptible of some change and modification without material departure from the principles and spirit thereof and for this reason I do not wish to be understood as limiting myself to the precise arrangement and formation of the several parts herein shown in carrying out my invention in practice.

I claim:

1. A device of the character described comprising a head having its opposite end portions disposed longitudinally on reversely directed curves, a handle secured to the head intermediate the curved ends thereof, the longitudinal margins of the head being provided with forwardly directed flanges, the extremities of the flanges adjacent one extremity of the head being inwardly beveled.

2. A device of the character described comprising a head, a handle secured to the head substantially at the center thereof, and flat brace members interposed between the head at points adjacent the working ends thereof and the handle at a point inwardly of the head and rigidly secured thereto, the portions of said brace members in contact with the head being of material width the longitudinal margins of the brace members converging in a direction toward the handle.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

BENJAMIN BROWNSTEIN.

Witnesses:
SAMUEL JACOBSON,
M. J. KRAUS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."