## H. K. WOOD. SHOVEL BLADE.

APPLICATION FILED SEPT. 22, 1908.

916,820. Patented Mar. 30, 1909. Hallacey, attorneys

## UNITED STATES PATENT OFFICE.

HARLEY K. WOOD, OF PIQUA, OHIO.

## SHOVEL-BLADE.

No. 916,820.

Specification of Letters Patent.

Patented March 30, 1909.

Application filed September 22, 1908. Serial No. 454,173.

To all whom it may concern:

Be it known that I, HARLEY K. WOOD, citizen of the United States, residing at Piqua, in the county of Miami and State of 5 Ohio, have invented certain new and useful Improvements in Shovel-Blades, of which

the following is a specification.

This invention comprehends certain new and useful improvements in shovels, spades, 10 scoops and similar tools, and the invention has for its object an improved construction of tool of this character embodying a blade provided with a longitudinal corrugation extending from the point or front edge of 15 the blade rearwardly toward and preferably nearly to the frog, the said corrugation producing a longitudinal depression in one face of the blade and a correspondingly rounded rib on the other face of the blade, said corru-20 gation serving to strengthen the tool, to enable the tool to enter the material more easily, and to reduce the friction on the blade of the tool and the consequent wear which friction produces.

For a full understanding of the invention, reference is to be had to the following description and accompanying drawings, in

which:

Figure 1 is a side elevation of a shovel con-30 structed in accordance with my invention. Fig. 2 is a top plan view of the blade end of the shovel; Fig. 3 is a bottom plan view of a portion thereof; Fig. 4 is a transverse sectional view on the line 4-4 of Fig. 1; Fig. 5 35 is a similar view on the line 5-5 of Fig. 1, and Fig. 6 is a transverse sectional view illustrating a modified form of corrugation.

Corresponding and like parts are referred to in the following description and indicated 40 in all the views of the drawings by the same

reference characters.

Referring to the drawing, the numeral 1 designates the blade of a scoop or shovel, said blade being rounded in the present instance 45 and being constructed of a single piece of sheet metal provided with the integral tangs 2 for the reception of the handle 3. The blade 1 is formed with a frog 4 and with a corrugation 5, said corrugation extending 50 from a point 6 of the blade rearwardly in a longitudinal direction and terminating at its rear end in the front end of the frog 4. This corrugation, as clearly illustrated in the drawing, produces a longitudinal depression

in the upper face of the blade and a rounding 55 rib on the lower face of the blade, the rear end of the rib terminating in the point or toe of the frog.

From the foregoing description in connection with the accompanying drawing, it is 60 manifest that by producing the blade with the corrugation 5, as above described, not only is the blade strengthened, but friction thereon is reduced and the consequent wear avoided, while at the same time the rib formed \$5 by the corrugation renders the device capable of being more easily entered in the material.

The invention is shown in the accompanying drawings as embodied in a scoop of the type that is known as a breaking down scoop, 70 used in unloading coal, but it is to be understood that my invention is not limited in this regard, but is applicable equally on all forms and types of scoops, shovels, spades and similar tools.

It is to be understood that the invention is not limited to having the rounded rib on the lower face of the blade and the depression on the upper face of the blade. For instance, as illustrated in Fig. 6, 1ª designates a shovel 80 blade in which the corrugation 5ª produces the rib on the upper face of the blade and a depression in the lower face.

Having thus described the invention, what is claimed as new is:

1. As a new article of manufacture, a blade for shovels or the like provided with a frog and a longitudinal corrugation extending from the frog forwardly and terminating in the front edge of the blade.

2. As a new article of manufacture, a blade for shovels or the Lko provided at its rear end with a frog which forms a depression in the lower face of the blade and a protuberance in the upper face of the blade and a longitu- 95 dinal corrugation which extends forwardly from said frog, and which terminates in the front edge of the blade, said corrugation forming a depression in the upper face of the blade, and a rounded rib projecting below the 100 lower face thereof.

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

## HARLEY K. WOOD. [L. s.]

Witnesses:

CYRUS M. AVERY, WM. W. Wood, 3d.