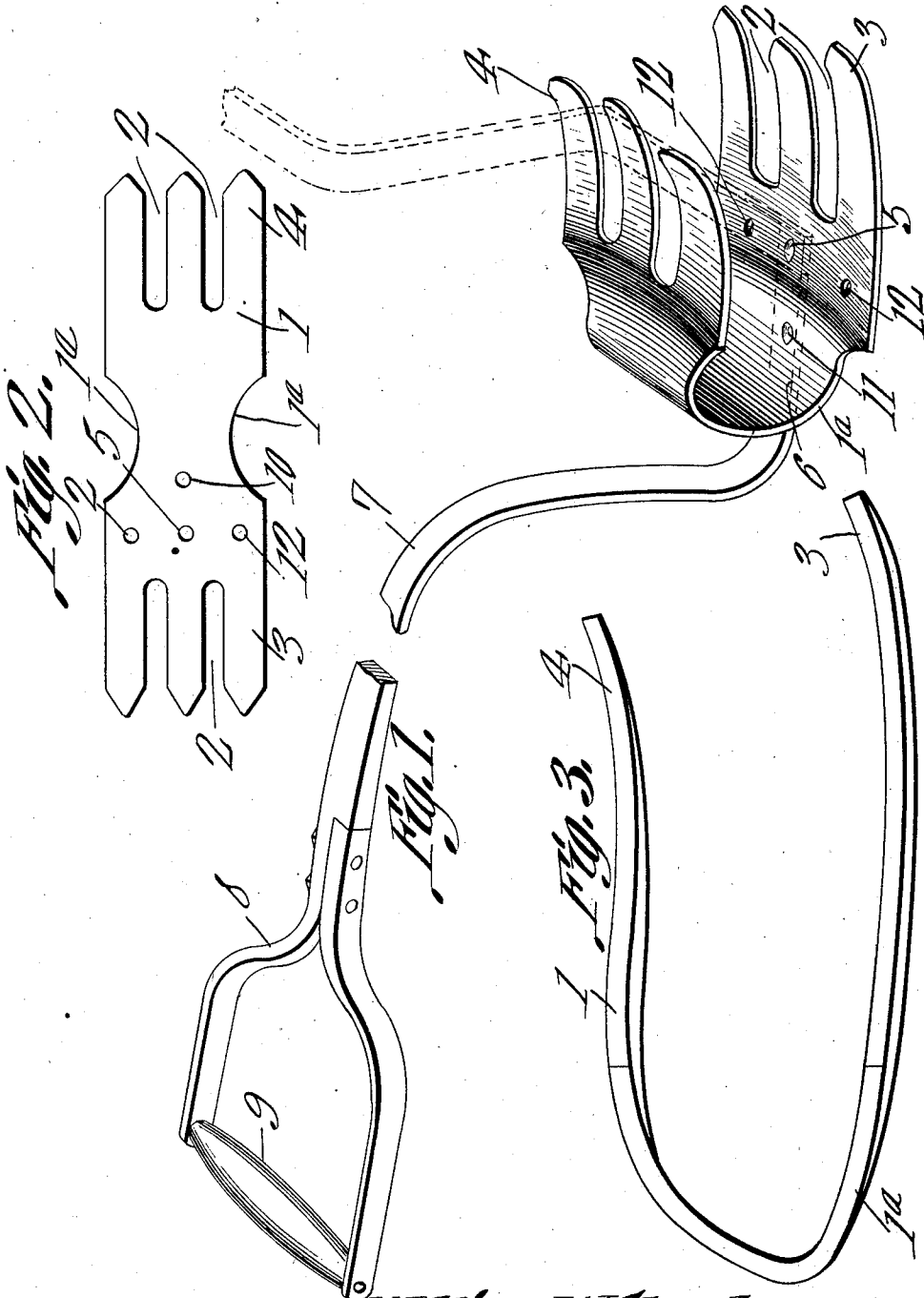


W. W. CHURCH.
ADJUSTABLE CLINKER SHOVEL.

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1,046,974.

Patented Dec. 10, 1912.



Witnesses

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WILLIAM WARREN CHURCH, OF ROCK ISLAND, ILLINOIS.

ADJUSTABLE CLINKER-SHOVEL.

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To all whom it may concern:

Be it known that I, WILLIAM W. CHURCH, a citizen of the United States, residing at Rock Island, in the county of Rock Island and State of Illinois, have invented a new and useful Adjustable Clinker-Shovel, of which the following is a specification.

This invention relates to shovels especially designed for removing clinkers from furnaces such as used, for example, in heating stores and residences.

One of the objects of the invention is to provide a device of this type which is simple in construction and which can be manipulated within the fire pot of a furnace so as to firmly engage clinkers therein and hold them while the shovel is being removed from the furnace.

A further object is to provide a shovel the clinker engaging portion of which is adjustable relative to the handle so as to enable the said portion to be placed in different positions to adapt the device to all forms of house furnaces and the like.

A further object is to so shape the handle of the shovel as to permit the body portion of said shovel to be brought close to the front and lower portion of the fire pot.

With these and other objects in view the invention consists in certain novel details of construction and combinations of parts hereinafter more fully described and pointed out in the claims.

In the accompanying drawings the preferred form of the invention has been shown.

In said drawings:—Figure 1 is a perspective view of a shovel constructed in accordance with the present invention, a portion of the handle being removed. Fig. 2 is a detail view of the blank from which the shovel is formed. Fig. 3 is a side elevation of the clinker engaging portion of the shovel, said portion being shown on an enlarged scale.

Referring to the figures by characters of reference 1 designates a plate of sheet metal having longitudinal slots 2 cut into the ends thereof to form fingers 3 and 4 located at the two ends of the plate. The plate is curved at intermediate points so as to bring the fingers 4 above but slightly back of the fingers 3 and it will be noted by referring to Fig. 1 that the terminals of these fingers 3 and 4 are curved upward to a slight extent. Both the upper and lower portions

of the plate are bowed or concaved transversely as shown and the intermediate or curved portion of the plate has its sides cut away as at 1^a. That portion of the plate adjoining the lower fingers 3 is connected, by means of a bolt or rivet 5, with the forwardly extended curved lower end portion 6 of the handle 7. This handle has an intermediate portion which is substantially perpendicular to the end portions thereof. Said intermediate portion extends upwardly adjacent to and above the curved portion of the plate 1 and then merges into a rearwardly extending portion which is forked as shown at 8 so as to receive a grip 9. An opening 10 is formed in the plate 1 back of the bolt 5 and is designed to receive another bolt 11 which extends into the forward end portion 6 of the handle. Additional openings 12 are formed within the plate 1 at opposite sides of the bolt 5, these openings being in alinement with the bolt 5 and either one of them being designed to receive the bolt 11. Obviously, by removing the bolt 11, the shovel can be swung upon the bolt 5 so as to bring either of the openings 12 into position above the forward end portion of the handle so as to receive the bolt 11. The shovel can thus be secured to the handle and with its fingers 3 and 4 extending laterally in either direction.

After clinkers have been loosened from the grate and raised above the hot coals by means of a poker or the like, the plate 1, which constitutes the body of the shovel, is inserted into the fire pot of the furnace and its fingers are forced against the clinker so as to bind tightly upon it. It will be apparent, therefore, that when the shovel is removed from the fire pot, the clinker will be carried therewith. The curve of the handle is such as to permit the body portion of the shovel to rest close to the front of the fire pot and thus greatly facilitate the manipulation of the shovel within the furnace. Should it be inconvenient to insert the shovel at the front of the fire pot and push it toward the back thereof, the said shovel can be adjusted on the handle and secured with its fingers extending laterally therefrom.

It will be seen that this device is very simple in construction and it will be found very convenient for the purpose intended.

By cutting away the sides of the intermediate curved portion of the plate 1, the

handle 7 can make a shorter turn than would be possible otherwise.

Various changes can of course be made in the construction and arrangement of the parts without departing from the spirit or sacrificing any of the advantages of the invention as defined in the appended claims.

What is claimed is:—

1. A device of the class described consisting of a bowed plate having upper and lower terminal fingers, and a handle, said plate being adjustably mounted on the handle.

2. A device of the class described consisting of a bowed plate having upper and lower terminal fingers, a handle pivotally connected to the bottom portion of the plate,

and means for adjustably securing the plate to the handle.

3. A device of the class described consisting of a bowed plate having terminal upper and lower fingers, the free ends of the upper fingers being out-turned, a handle pivotally connected to the plate and means engaging the plate and handle for securing said plate at predetermined angles to the handle.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

WILLIAM WARREN CHURCH.

Witnesses:

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