(No Model.)

J. PFEIFER.

SHOVEL.

No. 411,257. Patented Sept. 17, 1889.

Fig. 1.

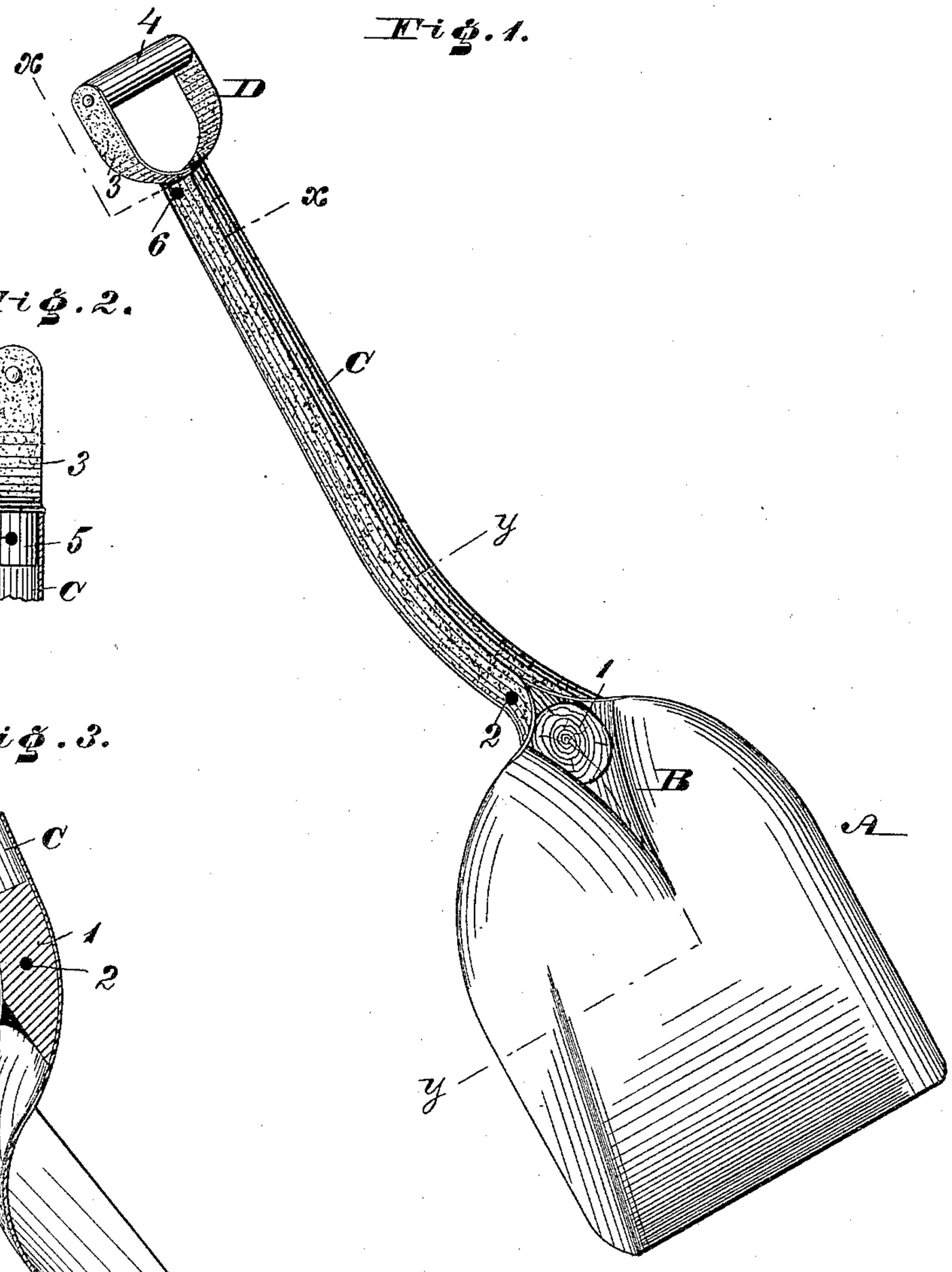

Fig. 2.

Fig. 3.

Witnesses
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UNITED STATES PATENT OFFICE.

JOHN PFEIFER, OF PHILADELPHIA, PENNSYLVANIA.

SHOVEL.

SPECIFICATION forming part of Letters Patent No. 411,257, dated September 17, 1889.

Application filed August 30, 1888. Serial No. 284,172. (No model.)

To all whom it may concern:

Be it known that I, JOHN PFEIFER, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Shovels, Spades, Scoops, &c., which improvement is fully set forth in the following specification and accompanying drawings.

My invention relates to improvements in coal, grain, and other shovels, spades, scoops, and other articles of the class having tubular metallic handles; and it consists in forming the blade, pad, and handle of such shovel, &c., of a single piece of wrought metal, whereby the article is stronger, cheaper, lighter, and better than heretofore produced.

Figure 1 represents a perspective view of a shovel embodying my invention, the same being taken from the back of the same. Fig. 2 represents an irregular section of a portion on line *x x*, Fig. 1. Fig. 3 represents an irregular section of a portion on line *y y*, Fig. 2, both figures being on an enlarged scale.

Similar letters and numerals of reference indicate corresponding parts in the several figures.

Referring to the drawings, A represents the blade of a shovel or scoop, and B the pad, C the handle, and D the grip thereof. The handle is tubular or hollow and the pad stamped or struck up, said handle and pad being integral with the blade.

In carrying out my invention I take a piece or plate of sheet or wrought metal, preferably steel, and cut the same into proper shape, and then by proper manipulations produce the blade, pad, and tubular or hollow handle, it being seen that said parts possess strength, lightness, and durability, and may be constructed more rapidly and less expensively than heretofore practiced.

In order to strengthen the adjacent portions of the handle and pad, there is inclosed within the same a block or filling 1 of wood, which is held in place by a rivet 2, passed through the block and handle, thus avoiding spreading and springing at the portions stated.

The grip consists of a bow 3, grasping portion 4, and neck 5, said bow and neck being formed of cast or malleable metal. The neck enters the end of the handle and is secured thereto by a rivet 6 or other suitable means, the grip thus being strong and durable and firmly connected with the handle. Prior to the connection of the grasping portion 4 with the bow 3, said portion being made of wood, the handle and bow are plunged into a pickle or bath, so as to be galvanized, the surplus material escaping through an opening in the neck, said opening being afterward filled and the portion 4 duly secured in position. It will be seen that rusting or corroding of the handle and bow is prevented, a uniform surface produced, and the joint of the handle closed.

I am aware that it is not new to make the blade and pad of a shovel of a single piece of material and weld to the same a tubular piece for a handle; but I am not aware that it is common to make the entire handle, pad, and blade of a single piece of wrought or sheet metal, the pad being struck up or stamped and the handle bent or rolled into shape.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

As a new article of manufacture, a shovel consisting of a tubular handle, a pad, and a blade, all formed of a single piece of sheet or wrought metal, a filling in said handle, and a grip with neck entering said handle and secured thereto, said parts being combined substantially as described.

JOHN PFEIFER.

Witnesses:
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