

J. D. TALLMADGE.  
Coal-Shovel.

No. 163,703.

Patented May 25, 1875.

Fig. 1

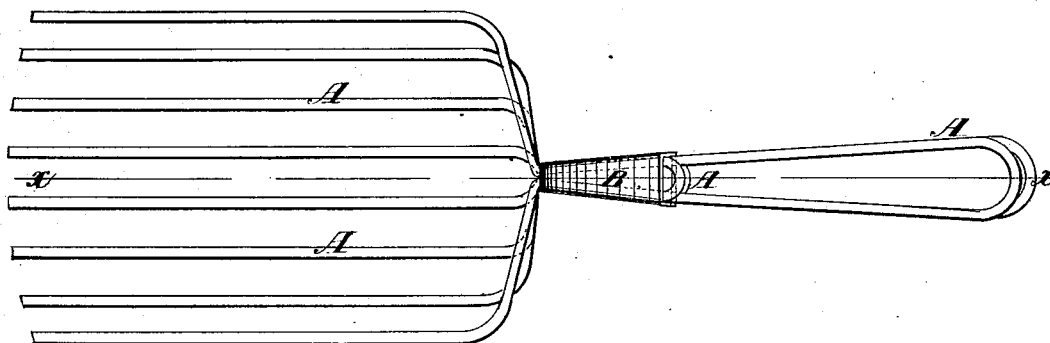


Fig. 2.

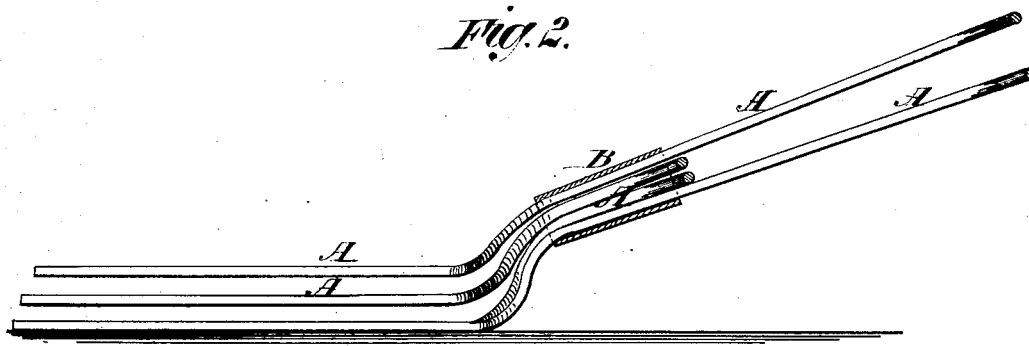
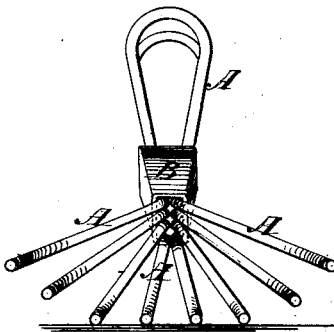


Fig. 3.



WITNESSES:

Francis McQuade.  
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INVENTOR:

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# UNITED STATES PATENT OFFICE.

JAMES D. TALLMADGE, OF CHICAGO, ILLINOIS.

## IMPROVEMENT IN COAL-SHOVELS.

Specification forming part of Letters Patent No. **163,703**, dated May 25, 1875; application filed March 1, 1875.

*To all whom it may concern :*

Be it known that I, JAMES D. TALLMADGE, of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Coal-Shovel, of which the following is a specification:

Figure 1 is a plan view of my improved implement. Fig. 2 is a longitudinal section of the same taken through the line *x x*, Fig. 1. Fig. 3 is a front view of the same.

Similar letters of reference indicate corresponding parts.

The invention will first be fully described, and then pointed out in the claim.

A are four wires, more or less, which are bent into U shape, and are then forced into a wedge-shaped ferrule, B. Two of the wires are made longer than the others, so that their bows may project to serve as a handle. The wires A may be arranged with the short wires between the long ones, or with the long wires between the short ones, or with the long and short wires alternating with each other. The wires A may be further secured in the ferrule B by a wedge inserted in said ferrule between the said wires. The projecting ends of the wires A are then bent by hand or upon a properly-shaped block into the shape of an ordinary ash-shovel.

If desired, all the wires A may be made short, and the saver provided with a wooden

or metal handle. The handles may be made of sheet iron, tin, galvanized iron, and other suitable material, and should be tapered to secure the dovetailed or wedged mode of fastening the wires in the said handles. When made of sheet-metal it may be locked together as a stove-pipe, or it may be soldered with or without locking. It may also be riveted.

The handles may be shaped upon a former, and the straight wires passed through and afterward bent into proper shape.

The handles may be strengthened with a ferrule, if desired.

When using the coal-saver the drafts of the stove or furnace should be open, so that the fine ashes may be drawn off into the chimney and pass out into the air instead of escaping into the room.

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

The combination, in a coal-shovel, of four wires doubled and bent into eight tines with protruding shanks, and the ferrule by which they are held together, all substantially as set forth.

JAMES D. TALLMADGE.

Witnesses:

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