

No. 745,882.

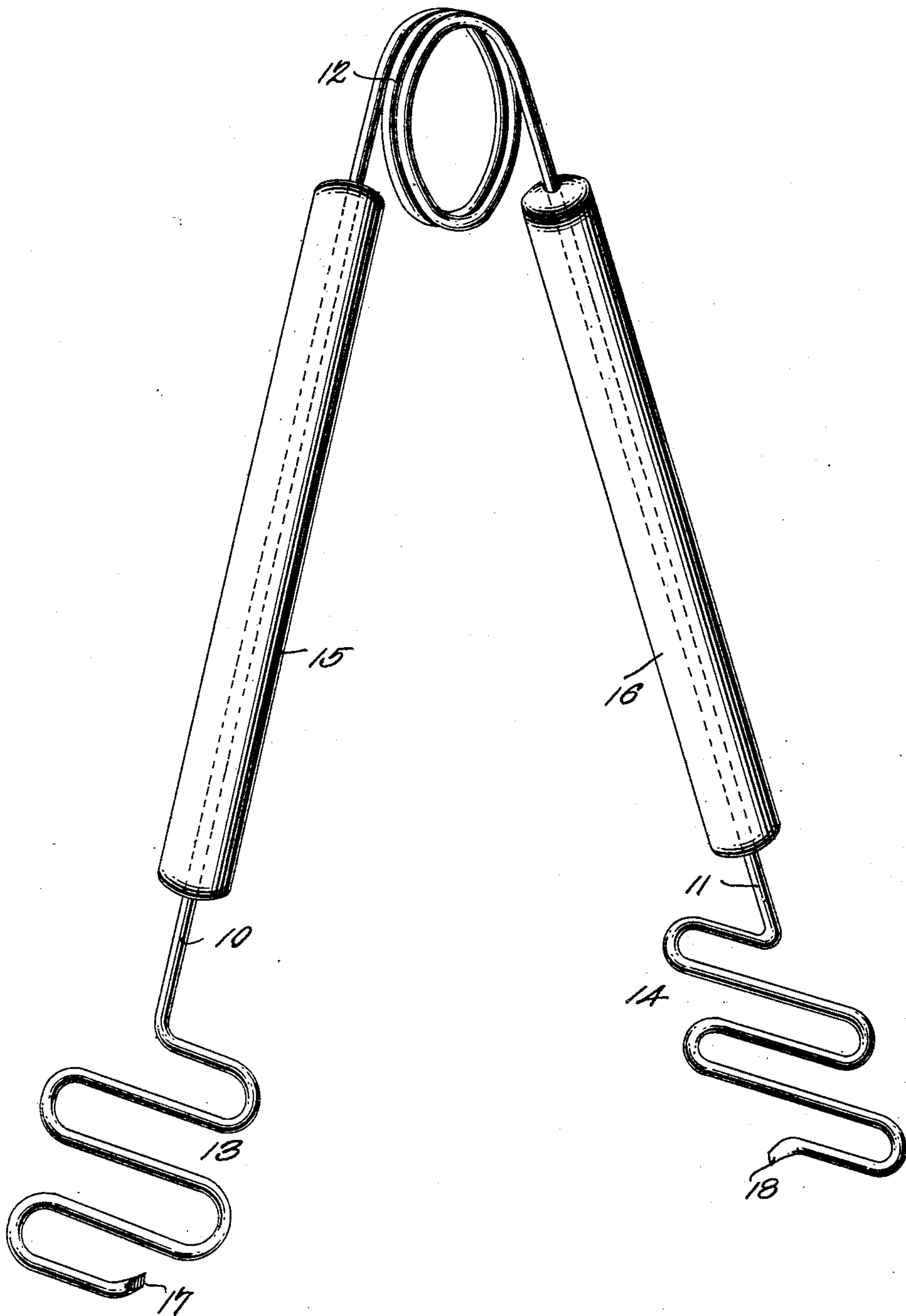
PATENTED DEC. 1, 1903.

J. L. MILLER.

FIRE TONGS.

APPLICATION FILED JULY 19, 1902.

NO MODEL.



Witnesses
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UNITED STATES PATENT OFFICE.

JAMES L. MILLER, OF ALBION, MICHIGAN.

FIRE-TONGS.

SPECIFICATION forming part of Letters Patent No. 745,882, dated December 1, 1903.

Application filed July 19, 1902. Serial No. 116,282. (No model.)

To all whom it may concern:

Be it known that I, JAMES L. MILLER, a citizen of the United States, residing at Albion, in the county of Calhoun and State of Michigan, have invented a new and useful Fire-Tongs, of which the following is a specification.

This invention relates to tongs employed for domestic purposes in handling lumps of coal and similar articles, more particularly, but which may be employed for any purpose requiring the use of tongs.

The invention has for its object the production of a simple, cheaply-constructed, and efficient implement for the purposes required; and the invention consists in certain novel features of the construction, as hereinafter shown and described, and specified in the claims.

In the drawing illustrative of the invention the figure represents a perspective view of the device complete.

The device is constructed principally of a single piece of wire, preferably steel, of suitable strength, bent at the ends into reverse loops and formed centrally into a number of coils and bent with the looped ends adjacent to each other and held normally apart by the connecting-coils, which thus serve as springs.

The parts of the device between the coils and the looped ends are provided with handles, which are preferably revoluble on the wire.

The main shanks of the device are represented at 10 11, the connecting-coils at 12, the looped ends at 13 14, and the handles at 15 16, as shown. At the extremities of the loops the wire is turned inward and preferably formed wedge-shaped, so that when the two parts of the implement are pressed together, the turned-in portions or spurs 17 18 form opposing points to assist in holding whatever article may be compressed between the looped portions and increase the efficiency of the implement.

The loops 13 14 are formed transversely of the implement and are spaced apart with substantially parallel sides, and thereby provide a broad bearing-surface against the article which is to be handled by the implement. Moreover, by forming the loops laterally in relation to the side members with the straight

members thereof parallel and spaced apart and provided with terminal inturned spurs a plurality of alternate interstices and ribs are formed, which produce flexible gripping members, the terminal spurs of which engage the lower edges of an object grasped between said members, and the downward strain exerted by the weight of said object causes the flexible gripping members to bend or yield laterally to conform to the shape of the object held by the gripping members or jaws, the straight rib members of the loops yieldably engaging said object at various points and conforming to any irregularities in its shape, thus securely holding it from dropping between the members in a longitudinal direction, while the rounded bent portions of the loops engage and hold it against displacement laterally.

Between the looped portions 13 14 and the coil 12 the shanks 10 11 are substantially straight, and the handles 15 16 are revolubly supported upon these straight portions and preferably occupy the greater portion of the space between the loops and the coils.

By mounting the handles loosely upon the side members or shanks they are adapted to turn in the hand as the tongs are compressed and very materially reduce the friction, as the hands in the act of compressing the tongs carry the handles around the shanks 10 11, so that the handles serve as friction-rollers between the hands and the shanks and very materially reduce the strains. This arrangement increases the efficiency of the device and renders its action much easier upon the hands and less tiresome thereto.

The implements may be made in various sizes and may be employed for various purposes; but, as before stated, will generally be employed for handling lumps of coal in connection with fireplaces and stoves or furnaces.

The wire employed may be of any suitable gage to adapt the implement to the work required, and the sizes of the coils, loops, and handles may be modified and changed without affecting the principle of the invention or sacrificing any of its advantages.

Having thus described my invention, what I claim is—

1. Tongs consisting of spaced side members

yieldingly connected at one end and provided
at their free ends with reversely-disposed
spaced loops arranged transversely in rela-
tion to said side members and having termi-
5 nal inturned spurs forming flexible gripping
members for yieldingly engaging an article at
opposite sides.

2. Tongs consisting of spaced side members
yieldingly connected at one end and provided
10 at their free ends with reversely-disposed
spaced loops arranged transversely in rela-
tion to said side members and having termi-
nal inturned spurs, the ends of said loops pro-
jecting on opposite sides of said side mem-

bers and forming flexible gripping members 15
for yieldingly engaging an article at opposite
sides and with the transversely-disposed
straight members of said loops arranged in
longitudinal alinement with said side mem-
bers. 20

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

JAMES L. MILLER.

Witnesses:

JAMES E. BARRY,

ELISABETH F. SMITH.