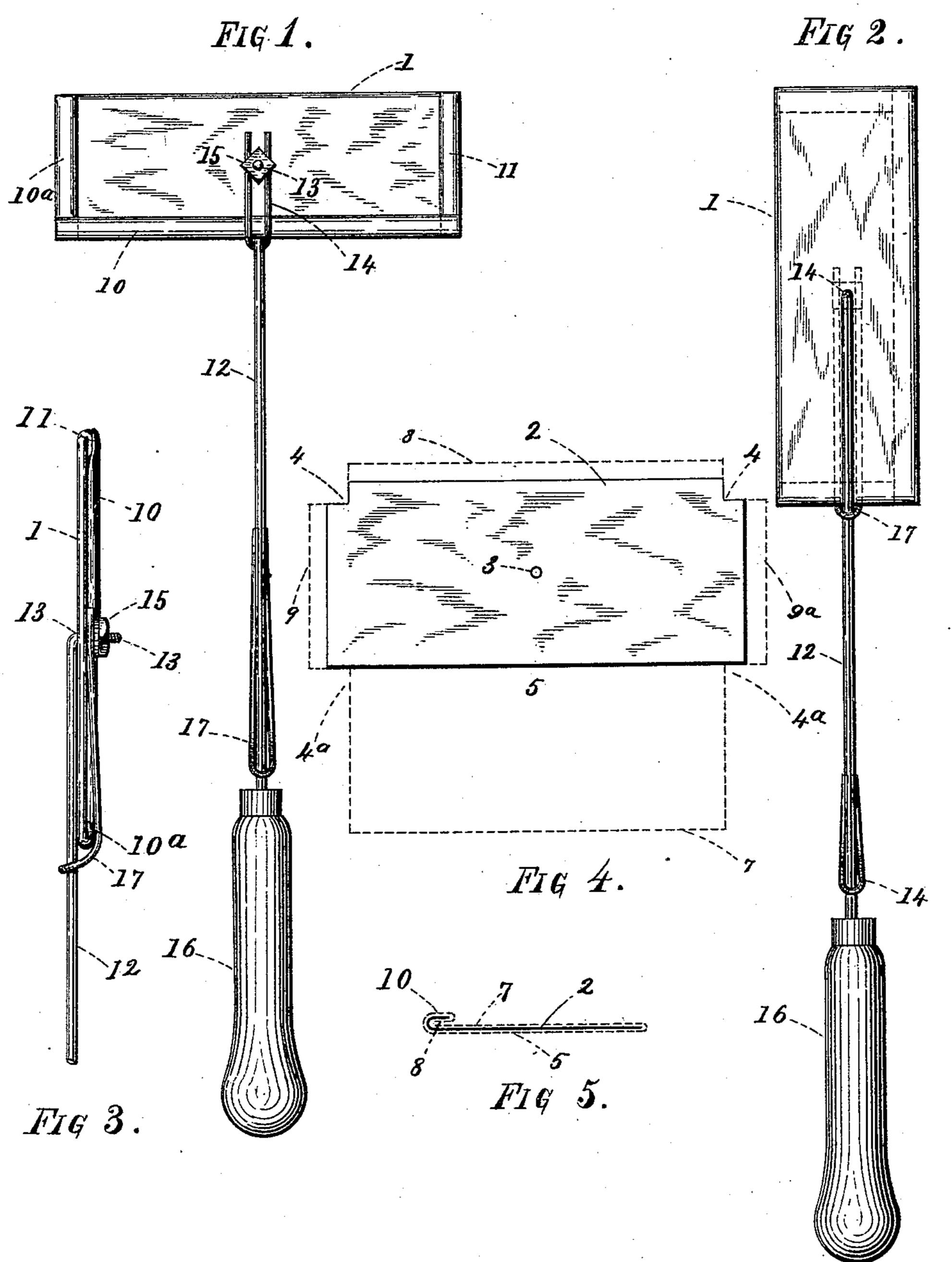
## W. R. FROST. FIRE KINDLER.

No. 471,172.

Patented Mar. 22, 1892.



Witnesses. Arthur J. Sangster.

M. Caldwell.

William R. Frost. Inventor.

By James Sangster

## United States Patent Office.

WILLIAM R. FROST, OF NORTH EVANS, NEW YORK.

## FIRE-KINDLER.

SPECIFICATION forming part of Letters Patent No. 471,172, dated March 22, 1892.

Application filed December 9, 1891. Serial No. 414,450. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM R. FROST, a citizen of the United States, residing in North Evans, in the county of Erie and State of New York, have invented certain new and useful Improvements in Fire-Kindlers, of which the following is a specification.

The object of my invention is to provide a simple and convenient fire-kindler capable to of being used either in a side position or lengthwise, all of which will be fully and clearly hereinafter described and claimed, reference being had to the accompanying draw-

ings, in which—

Figure 1 is a front face view of my improved fire-kindler complete, showing the removable kindler in a position to be shoved sidewise into a stove or other receptacle in which a fire is to be kindled. Fig. 2 is a re-20 verse face view of the same, showing the kindler in a position adapting it to be used lengthwise. Fig. 3 is a side elevation of the kindler, the handle portion being omitted. Fig. 4 is a face view of the metal blank used 25 in making the kindler, showing, also, the form of the asbestus cover by dotted lines, both before being folded together for forming the kindler portion. Fig. 5 represents a diagram showing a section through the kindler in or 30 about line a a, Fig. 2, the asbestus cover being shown by dotted lines.

Referring to the drawings, 1 represents the kindler. It is constructed of a blank 2 of sheet metal, having a small hole 3 near the 35 center and the corners 4 cut out at one side. Over this blank is placed a sheet of asbestus paper or cloth 5, having the corners cut out at the opposite side at 4 and having the opposite side also cut out at 4<sup>a</sup>, the portion 7 40 extending outward, as shown. The metal blank 2 is laid on the asbestus cover, as shown in Fig. 4. The portion 7 is folded over it. Then the side 8 and the ends 9 and 9a are folded over the edges of the blank, after which 45 the asbestus sides and ends and the metal are all folded over together, so that the asbestus cover and the metal blank are rigidly held together by the folds 10, 10<sup>a</sup>, and 11. (See Figs. 1 and 3.)

The handle-shank 12 is attached to the kindle-shank 12 is attached to the kindle-shank

passed through the asbestus and through the hole 3 in the kindler. A U-shaped loop 14 is then put on, so that the ends pass each side of the hook portion 13, which is provided with 55 a screw-thread adapted to receive the nut 15, which secures the whole rigidly in place, substantially as shown in Figs. 1, 2, and 3. The handle-shank is provided with a wooden handle 16, and a supplementary U-shaped loop 60 portion 17 is also removably secured to the shank, so that either the long or short loop portion may be used. When the kindler is secured in the position shown in Fig. 1, the short loop portion 14 is used, and when put 65 on as in Fig. 2 the long loop portion 17 is employed. The short loop portion 14 is then sprung over the handle, so as to prevent it from getting lost.

This fire-kindler is used by being dipped in 70 kerosene-oil or the equivalent thereof and then putting it into the stove or kindling material and setting fire to it. The asbestus covering will absorb sufficient oil so it will burn long enough to start a fire, after which 75 it is withdrawn. The asbestus covering, being fire-proof, is not injured by the operation.

The object in making the position of the kindler changeable is that under some conditions it is better to present the broad side of 80 the kindler to the fire, while under other conditions—such as a small opening—it is necessary to enter the kindler lengthwise.

I claim as my invention—

1. A fire-kindler consisting of a sheet-metal 85 blank combined with a covering of asbestus, the two secured together by folding the sides and ends over each other, and a handle for operating it, substantially as described.

2. In a fire-kindler, the combination, with 90 the kindler, of a removable handle having a hook portion provided with a screw-thread, a wire loop portion which loops over the handle-shank, so that its two ends extend over the face of the kindler and each side of the screw 95 portion of the hook as it projects through the kindler, and a nut for rigidly securing the whole together, substantially as described.

WILLIAM R. FROST.

Witnesses:

JAMES SANGSTER, ARTHUR J. SANGSTER.