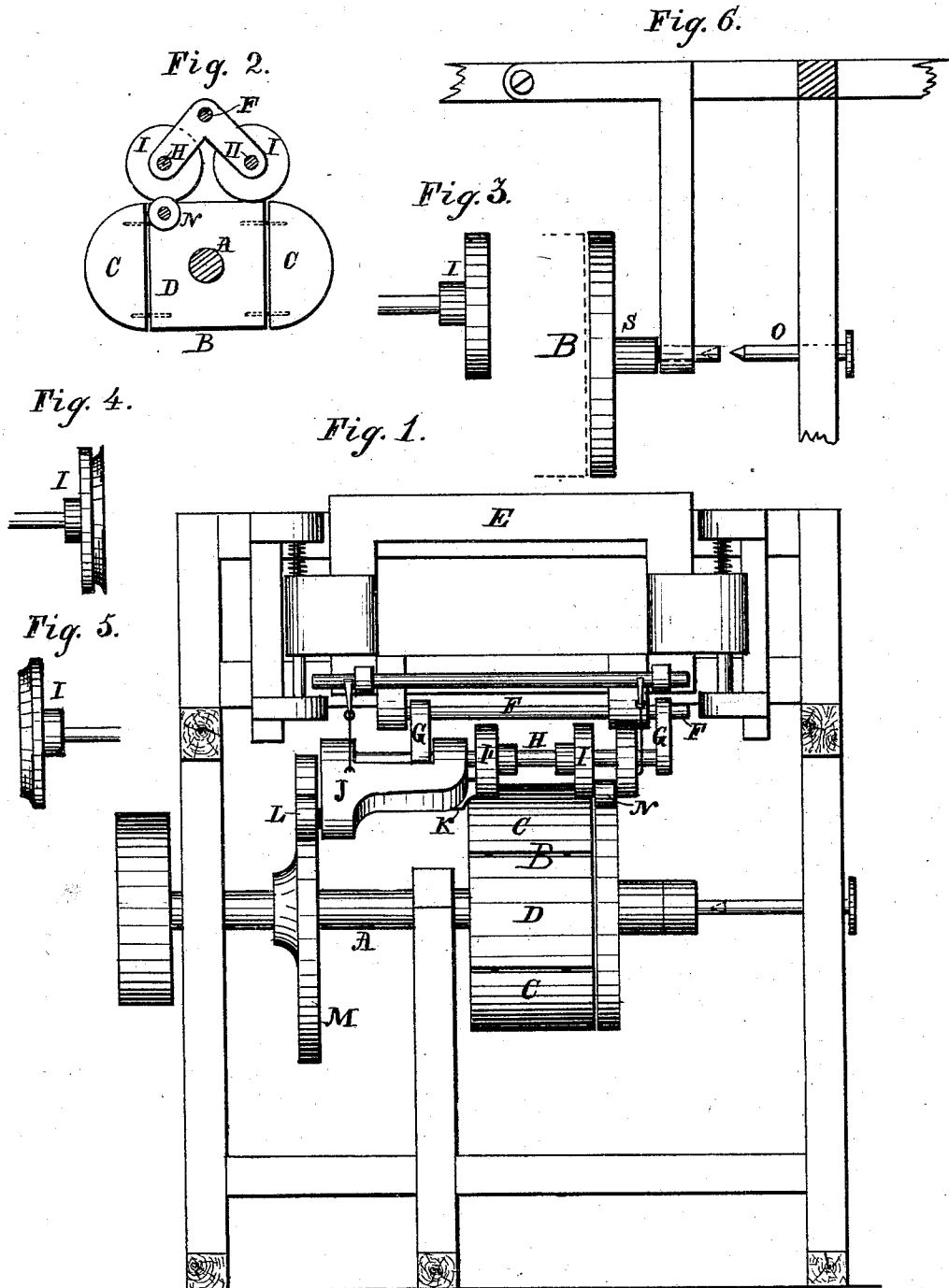


J. E. WELLS.

MACHINE FOR MAKING WASH-BOILERS.

No. 172,063.

Patented Jan. 11, 1876.



Witnesses.

George C. Wells
Edward J. Wells.

Inventor.

James E. Wells.

UNITED STATES PATENT OFFICE.

JAMES E. WELLS, OF NEW MILFORD, CONNECTICUT.

IMPROVEMENT IN MACHINES FOR MAKING WASH-BOILERS.

Specification forming part of Letters Patent No. **172,063**, dated January 11, 1876; application filed March 23, 1875.

CASE A.

To all whom it may concern :

Be it known that I, JAMES E. WELLS, of New Milford and State of Connecticut, have invented an Improvement in a Machine for Making Stove-Boilers, of which the following is a specification:

The nature of my invention consists of the shaft A, as shown in the accompanying drawings, attached to any frame suitable for the purpose, on which is secured the oblong head B, which is made hollow and in three pieces, as shown in Figures 1 and 2. The ends C C are doweled into the square section of the head at each corner, to hold them in their proper places and admit of the head being expanded or contracted, as desirable, by a screw-cam or any convenient device arranged inside the head D and operated from the outside. The object of this arrangement is to admit of the metal for a boiler being readily put on or removed from the head, and hold it firmly to the head for the application of tools necessary to make a boiler. To the movable frame E is attached the shaft F, directly over the head B, as shown in drawing, Fig. 1, to which are secured the crotch-hangers G, (shown more fully in Fig. 2,) on which are supported the shafts H, on which the tools or rolls I are secured and held to their work. On the front shaft H is attached, at the wire or top end of the boiler, the frame J, to which is secured the shoe K for rolling the metal over the wire; also the roll L, running on the cam M on the shaft A, to keep the shoe K perfectly adjusted to the head B, the object in arranging rolls on the two shafts being to make them self-adjusting and admit of different-shaped rolls being applied. As shown in the drawing, the roll, Fig. 4, follows Fig. 3, and designed for putting on the bottom. The roll N, Figs. 1 and 2, turns up the burr against the roll 3,

which also rolls down the edge of the bottom over the burr; then the roll, Fig. 4, is adapted to bring the edges or seam over at an angle that may be rolled down by Fig. 3, and either roll may be applied when required.

Drawing Fig. 5 represents the shape of the roll following the roll I', Fig. 1. Fig. 6 shows a head, S, hung on a frame, which swings on a pivot designed to hold the metal for the bottom securely against the head B, and held to its place by the screw O, the roll N being arranged as to be shifted to admit the head S when desired. The roll N, while turning the burr, is kept to its proper position by connecting it with the roll L by means of arms attached to a shaft placed across the movable frame E, and not shown in drawing.

To operate the machine the rolls are raised by any convenient arrangement, the metal (locked together) is placed on the head, and the heads extended until it is tight. The roll N turns up the burr. The bottom, with edges turned at right angles, is placed over the burr and secured by the head S, and the seam rolled down. The shoe K is brought against the edge of the metal by a lever, or in any effective or desirable manner for turning the metal over the wire.

I claim as my invention—

1. The adjustable head B, in combination with the crotch-hangers G, shaft H, and rolls I, as described, and for the purpose set forth.

2. The combination of the adjustable shoe K, frame J, roll L, and cam M, substantially as described and shown, and for the purpose set forth.

JAMES E. WELLS.

Witnesses:

GEORGE C. WELLS,
EDWARD J. WELLS.