(No Model.) 2 Sheets—Sheet 1.

W. F. GREENE.

HANDLE.

No. 546,464. Patented Sept. 17, 1895.

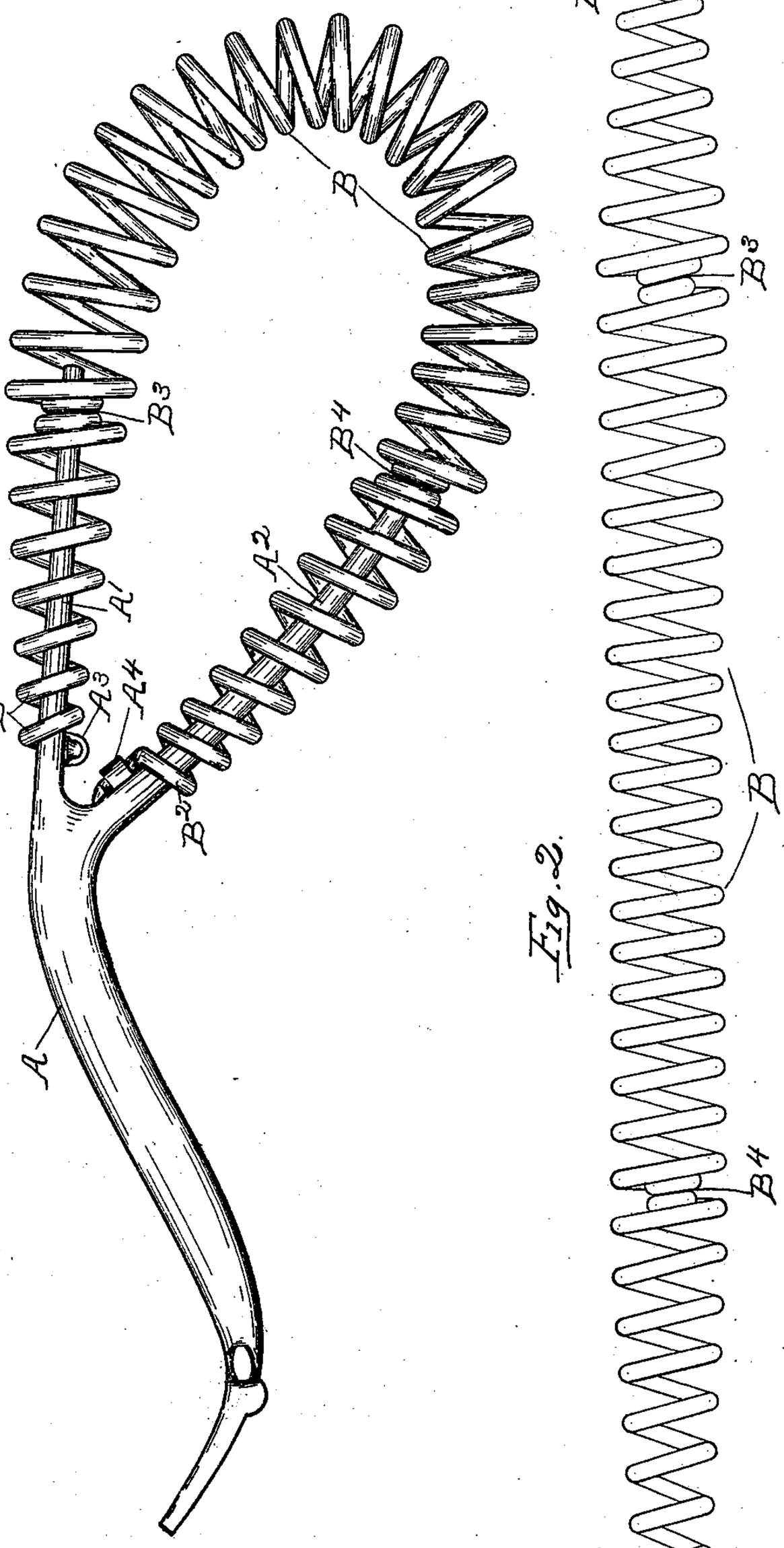

Fig. 1.

Fig. 2.

Witnesses=
C. H. Curtis
D. Nolan

Inventor:
William F. Greene
by Mosher & Curtis
Attys.

(No Model.) 2 Sheets—Sheet 2.

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HANDLE.

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Fig. 3.

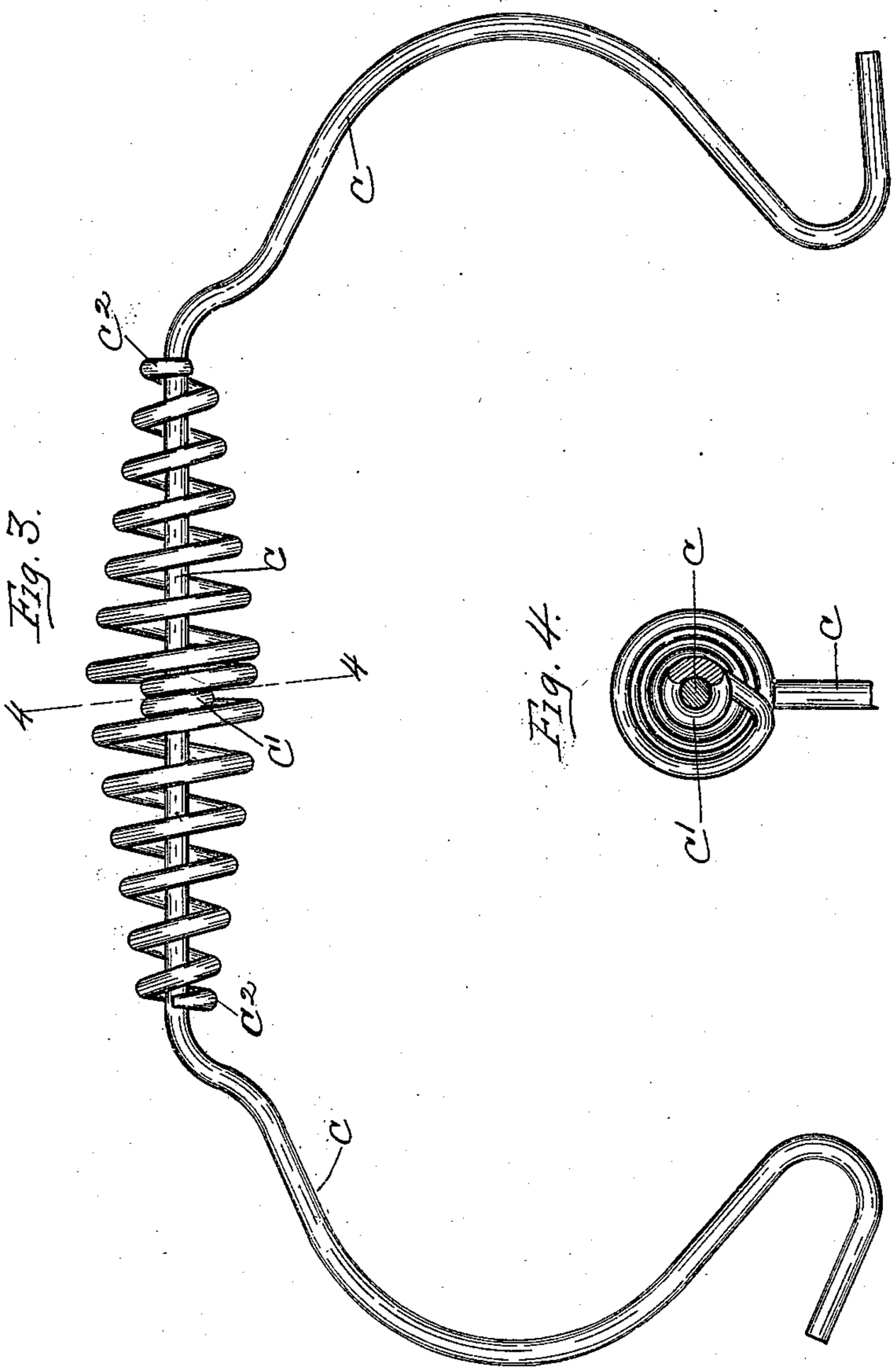

Fig. 4.

Witnesses=
C. N. Curtis
D. Nolan

Inventor:
William F. Greene
by Mosher & Curtis
Attys.

UNITED STATES PATENT OFFICE.

WILLIAM F. GREENE, OF TROY, NEW YORK.

HANDLE.

SPECIFICATION forming part of Letters Patent No. 546,464, dated September 17, 1895.

Application filed December 18, 1894. Serial No. 532,157. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM F. GREENE, a citizen of the United States, residing at Troy, county of Rensselaer, and State of New York, have invented certain new and useful Improvements in Handles, of which the following is a specification.

The invention relates to such improvements; and it consists of the novel construction and combination of parts hereinafter described and subsequently claimed.

Reference may be had to the accompanying drawings, and the letters of reference marked thereon, which form a part of this specification.

Similar letters refer to similar parts in the several figures therein.

Figure 1 of the drawings is a view in side elevation of my improved handle applied to a stove-lifter. Fig. 2 is a top plan view of the wire coil detached and having its longitudinal axis in a straight line. Fig. 3 is a view in side elevation of my improved handle applied to a kettle-bail. Fig. 4 is a cross-section of same, taken on the broken line 4 4 in Fig. 3.

The lifter A is provided with an integral bifurcated shank comprising the bifurcate arms A′ and A^2.

The coil B is made of a single integral piece of wire, and is provided with the relatively small end turns B′ and B^2, adapted to inclose and fit the bifurcate arms, also with the relatively small turns B^3 and B^4, adapted to inclose and approximately fit the outer ends of the bifurcate arms. The turns B^3 and B^4 are located intermediately of the end turns, and the other turns between the intermediate turns, and between an intermediate and end turn are relatively large to form a convenient handle-grasp and keep the wire removed from the handle-shank, which frequently becomes excessively hot in use. The ends of the coil may be secured to the shank-arms in any known manner. I have shown the end B′ secured by inserting the end of the wire forming the end turn of the coil through an aperture crosswise of the shank-arm in the side lug A^3 on the arm and flattening or bending the projecting end. The other end B^2 of the coil is secured by inserting the end of the wire forming the coil through an aperture lengthwise of the shank-arm in a side lug A^4 on the arm and flattening or bending the projecting end. The relatively small intermediate turns B^3 and B^4 are slipped on over the ends of the bifurcate shank-arms, respectively, and may be afterward pinched in a press to cause them to fit tightly thereon. I am thus able to support the coil forming the handle-grasp at intermediate points between its ends, thereby rendering the grasp much firmer and more stable.

As heretofore constructed with end supports only the instability of the grasp, especially when very hot, rendered the implement unsteady and uncertain, and in lifting a considerable weight the turns forming the grasp were likely to engage the inclosed shank and might absorb sufficient heat therefrom to burn the hand of the operator.

In Fig. 3 I have shown my improved handle applied to a kettle-bail C. The relatively small intermediate turn C^1 is located in the middle of the coil, and only one is necessary to render the grasp firm and steady. The bail or shank C passes through the entire length of the coil, and the relatively small end turns C^2 and intermediate turn C′ may each be secured to the bail or shank by pinching in a press, or in any known manner. The relatively large turns of the coil may be of uniform size when desired, but I prefer to so form them that they shall gradually diminish in size from the intermediate turn or turns toward the end turns, substantially as shown.

Heretofore handle-shanks have been provided with coils having their turns toward and at the end of said coils made relatively small and the end turns made to singly embrace the shank by the elasticity of the coil wire. In other cases all the turns of the coils have been made to embrace the shank. In the former class the relatively large turns of the coils are not held with sufficient rigidity to prevent their transverse or lateral movement relative to the inclosed shank, whereby the certainty and security of the handle as a whole is impaired, and in some cases the hand of the user is exposed to too great heat, either from contact with the shank between the turns of the coils or by conduction from the shank to the wire, distorted and bent into contact therewith. A coil fitted on the shank as in the latter class above mentioned is more rigid

and secure, but a handle thus made is liable to be overheated to the discomfort of the user, and, further, the shank is unnecessarily heavy for many uses. It is characteristic of my improvement that while the wire ends of the coil are secured to the shank in the usual manner a part of the relatively large turns of the coil intermediate the ends are secured to the shank by connections extending inwardly from the turns which constitute the exterior of the coil. These connections are continuations of the coil wire so bent as not to materially interfere with the symmetry of the coil as a whole, and yet integral with it and secured to the shank within and at a distance from the outer turns—that is, from the coil proper. These connections support the coil laterally at the point where it would otherwise be most liable to distortion, and preferably at a point in the shank farthest removed from the source of heat, and the construction is such that the coil cannot be distorted laterally.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a handle, the combination with a shank, of a shank-inclosing coil of wire having its end turns and one or more intermediate turns in the coil relatively small and approximately fitting the shank, and having relatively large turns in the coil between the small intermediate turn and each end-turn, said small end and intermediate turns being secured to the shank and the small intermediate turns connected rigidly to exteriorly situated turns of larger diameter, substantially as set forth.

2. In a handle, the combination with a bifurcated shank, of a looped coil of wire having relatively small end and intermediate turns inclosing each bifurcate arm of the shank, and relatively large arm-inclosing turns between the intermediate and end-turns, and means for securing the coil upon the shank, said small end and intermediate turns being secured to the shank and the small intermediate turns connected rigidly to exteriorly situated turns of larger diameter, substantially as set forth.

In testimony whereof I have hereunto set my hand this 4th day of December, 1894.

WILLIAM F. GREENE.

Witnesses:

GEO. A. MOSHER,

FRANK C. CURTIS.