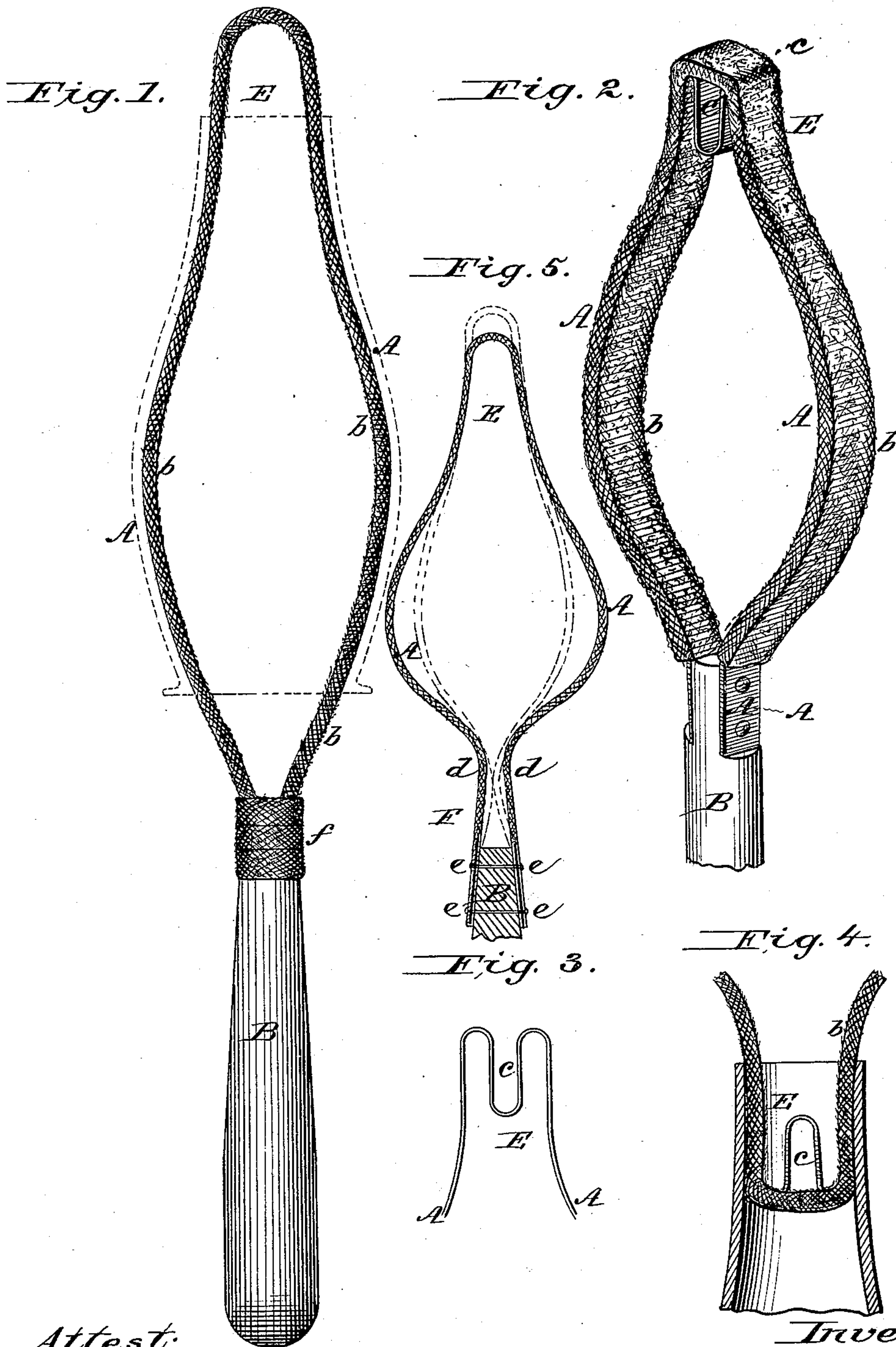


(No Model.)

C. W. FERGUSON.
Lamp Chimney Cleaner.

No. 230,260.

Patented July 20, 1880.



Attest:
H. D. Pennell,
Floyd Harris

Inventor.
Charles William Ferguson
By Johnson & Johnson
Atty's

UNITED STATES PATENT OFFICE.

CHARLES W. FERGUSON, OF JANESVILLE, WISCONSIN.

LAMP-CHIMNEY CLEANER.

SPECIFICATION forming part of Letters Patent No. 230,260, dated July 20, 1880.

Application filed May 7, 1880. (No model.)

To all whom it may concern:

Be it known that I, CHARLES WILLIAM FERGUSON, a citizen of the United States, residing at Janesville, in the county of Rock and State of Wisconsin, have invented new and useful Improvements in Lamp-Chimney Cleaners, of which the following is a specification.

The purpose of my invention, like other devices of its class, is to provide means for cleaning the glass chimneys of oil-lamps.

The object of my improvement is to produce a covered or padded curved spring-hoop of one piece of strap spring metal conforming in shape to every part of the wall of the lamp-chimney, and so molded to obtain the advantages of bringing the cleaning-pad into direct contact, by its springing action, with the whole interior vertical conformation of the glass chimney.

The shape of the spring-hook is such that when inserted fully into the chimney it conforms thereto, as above stated, and also may be used uncontracted for cleaning or for additional polishing of the top or narrow part and the base.

The exact construction and operation of the device will be hereinafter described, and illustrated in the accompanying drawings, in which—

Figure 1 represents an elevation of my improved lamp-chimney cleaner; Fig. 2, a perspective view of the same as modified; Fig. 3, a sectional detail of Fig. 2; Fig. 4, a detail of Fig. 2, showing the neck-extension in the chimney-top in reverse position; and Fig. 5 represents an elevation of another form of my improved lamp-chimney cleaner, showing a bottom contraction of the single spring producing a meeting re-enforce when contracted by insertion in the chimney, the dotted lines showing the position of contraction in the chimney and the sloping end of the handle to produce the requisite angle of contraction.

The curved spring A is made of steel or brass or any yielding material, and is of strap form, and molded upon a block to conform to the shape of the lamp-chimney. It is covered by a permanent padding, b, and being of one piece and covered throughout none of the

metal comes in contact with the glass, which would result in almost immediate breakage.

The spring as it is shown is sufficiently strong; but I may interpose a coiled spring to throw back the loop after depression or contraction within the glass chimney.

The free ends of the spring-hoop A are properly fastened to a wooden handle, B, and their connection wrapped with cloth or fabric f, so that not a particle of metal comes in contact with the glass.

The top depression of the curved spring to conform to the chimney shape acts also as a means for the play of the spring, which has hitherto been only effected by the play of the slotted ends upon pins of a continuous stem.

In one plan I have shown the spring returned within the neck of the curve, as at c, so as to form a strong brace and expressing agent to induce the spring to its normal position of expansion after its contracted use within the chimney.

The curved spring has, in order to conform to the shape of the chimney, a neck-extension, E, made by depressing it on both sides near the top extremity to conform to the shape of the neck of the lamp-chimney. This may be used to clean the chimney-neck by reversing the entrance of the cleaner.

In the modification shown in Fig. 5 the free ends of the single spring A are fastened, by through-rivets e e to the handle B, which in this case slopes to give angle to a lower depression, F, of the hoop, whereby, when the device is inserted in the chimney, the sides will meet at d d to give an angle of contraction, meeting, and consequent re-enforce, thus making, in connection with the neck E, nearly a true elliptic, and giving a marked advantage in inducing the spring to resume its normal position after contraction, thereby preserving its resiliency without extraneous devices.

I claim—

1. In a lamp-chimney cleaner, the curved spring padded hoop A, molded to conform to the shape of the lamp-chimney, and of one piece, substantially as described.

2. In a lamp-chimney cleaner, the neck-extension E of the spring-hoop, substantially as and for the purpose described.

3. In a lamp-chimney cleaner of one piece
of strap metal, padded as set forth, the inte-
rior return, *c*, of the neck-extension E, whereby
an inducing and bracing spring is obtained,
5 substantially as set forth.

4. In a lamp-chimney cleaner of one piece
of strap metal, padded as set forth, the single
spring-hoop A, having the neck-extension E
and the lower depression, F, adapted, by mold-
10 ing and fastening to the sloping handle B, to

give angle of contraction, meeting, and re-en- 15
force *d d*, substantially as described.

In testimony whereof I have hereunto set
my hand in the presence of two subscribing
witnesses.

CHARLES WILLIAM FERGUSON.

Witnesses:

COLLIN C. MCLEAN,
HORACE MCELROY.