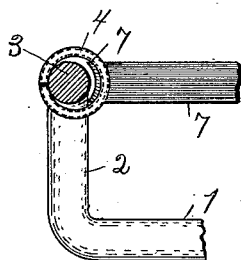
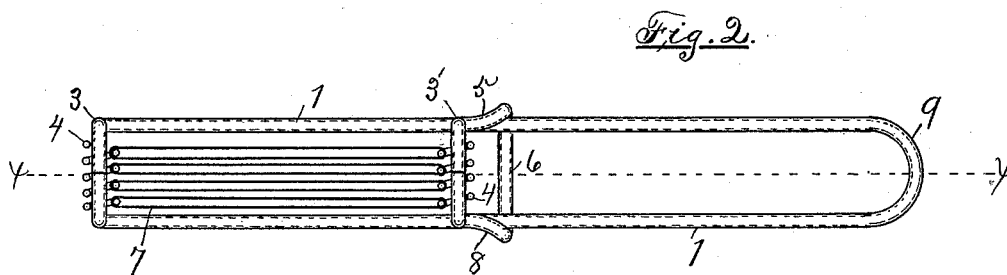
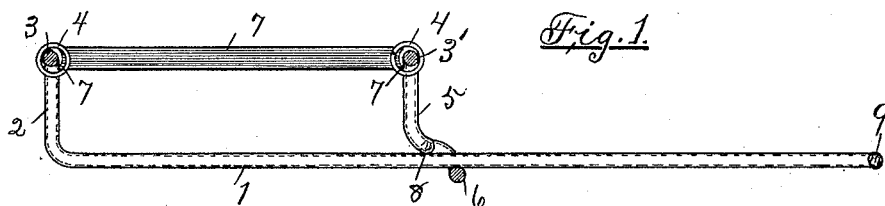


(No Model.)

J. H. LOOSE.
COMB CLEANER.

No. 421,413.

Patented Feb. 18, 1890.



Witnesses

Henry F. Luger
Henry Baer Jr

Inventor

John H. Loose,
Attorney
E. P. Robbins, M.E.

By

UNITED STATES PATENT OFFICE.

JOHN H. LOOSE, OF CINCINNATI, OHIO.

COMB-CLEANER.

SPECIFICATION forming part of Letters Patent No. 421,413, dated February 18, 1890.

Application filed August 19, 1889. Serial No. 321,245. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. LOOSE, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Comb-Cleaners; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to the construction and arrangement of a comb-cleaner.

The object of my invention is to produce a simple and inexpensive device adapted to general use.

The invention consists, essentially, of a suitable frame and a number of parallel threads or strips of suitable material held taut and secured at their ends by parts of the frame, the comb-teeth being swiped into and between the threads or strips when cleaning it.

Figure 1 is a mid-sectional view of the device along the dotted line *xx*, Fig. 2. Fig. 2 is a plan view of the device; and Fig. 3 is a portion of the outer end of the device, as seen in Fig. 1 on an enlarged scale.

The same letters refer to the same parts in different figures.

The specific construction illustrating the character of the invention is shown in the figures, where 1 2 9 is a frame made of a single piece of wire, bent at 9 to form a handle and having parallel sides 1 and end projections or branches 2, which are bent inwardly and joined end to end, forming the cross-end part 3, as seen in Fig. 2. A movable part 3' 5 6 is made of a single piece of wire, bent into the form shown, and is slipped onto the end 9 of the frame, and may be slid along the frame sides 1 to any desired position. The part 3' 5 6 consists of the cross-piece 6, placed beneath the frame parts 1, the branches 5 bent outward around and up over the parts 1 and then forward above the parts 1, so as to have the parts 8 rest upon the top sides of the frame parts 1 and of the cross part 3', formed by joining the ends of the device. When the part 3' 5 6 is in position, any pressure against the part 3' toward the left hand will clamp the device to the frame parts 1 and cause it to hold to the frame.

Any suitable threads or strips may be se-

cured to and stretched between the end part 3 and the movable part 3' and be retained in proper position by any suitable means. The threads or strips may be tightened by pressing the part 3' of the device 3' 5 6 toward the right hand, so as to loosen the device 3' 5 6 on the frame part 1, and then drawing it back toward the end 9. If the part 3' be released 60 by the fingers, the device 3' 5 6 will clamp itself in position.

A complete operative device has now been described; but it is considered preferable to use other parts in connection with the device described, in order that a more substantial and answerable device may be at command. It is believed that rubber loops 7, which can be procured of suitable kind and size in market, are preferable for the means which engage and cleans the comb-teeth. By placing such loops edgewise, as shown in the figures, they will have the greatest strength and durability with the least width, and will be adapted to clean fine-toothed combs. In order to secure the ends of such loops to the cross-pieces 3 and 3' of the frame parts so that the loops may be retained edgewise, as shown, wire coils 4 are placed around the parts 3 and 3' and the ends of the loops are fastened to the coils. The loops may be inserted between the coils in an evident manner before the coils are put in place, and then the parts 3 3' may be sprung apart at the line *xx*, Fig. 2, and inserted within the coils, or the coils 4 may be in place on the parts 3 3' and be rotated to work the loop ends along the coils axially into the desired position. The loops being placed as shown in the figures, they will be retained in proper position by the coils and kept parallel. If the wire of the frame parts be sufficiently rigid, the device will keep its form; but, if it is so desired, cylindrical pieces of metal open along one side may be placed over the coils 4, with their edges bent down against the edges of the loops 7 as a means of securing the parts more firmly together.

I claim—

1. In a comb-cleaner, a frame having one stationary and one adjustable projecting part, in combination with parallel threads or strips suitably secured to the said projecting parts, and the adjustable projecting frame part be-

ing arranged to slide along and be suitably secured to the frame-body and adapted to tighten the threads or strips, substantially as set forth.

5 2. In a comb-cleaner, a frame having a main longitudinal body part and parts projecting outwardly sidewise therefrom and having cross attaching parts for threads or strips, one projecting attaching part being arranged
10 to slide along and clamp to the main frame, in combination with the said threads or strips suitably secured to the said cross parts, substantially as set forth.

15 3. In a comb-cleaner, a frame made of a single piece of wire bent at its middle into a handle and with its branches parallel and with the extremities of its branches bent outwardly and then laterally to meet end to end to form a continuous end cross attaching part
20 for threads or strips, and an adjustable attaching part for the threads or strips made of a single piece of wire bent to embrace and

rest upon the longitudinal frame branches and having its ends bent outwardly from the frame-body and then laterally to meet end to 25 end to form a continuous attaching cross part for the other ends of the threads or strips, in combination with the said threads or strips suitably secured at their ends to the said cross parts, substantially as set forth. 30

4. The combination of a suitable frame having parts projecting outwardly from the frame-body and having cross parts carried by the said projecting frame parts, wire coils around the said cross parts, and threads or 35 strips attached at their ends to the coils on the cross parts, substantially as set forth.

In testimony whereof I now affix my signature in presence of two witnesses.

JOHN H. LOOSE.

Witnesses:

EDWARD P. ROBBINS,
HENRY BAER, Jr.