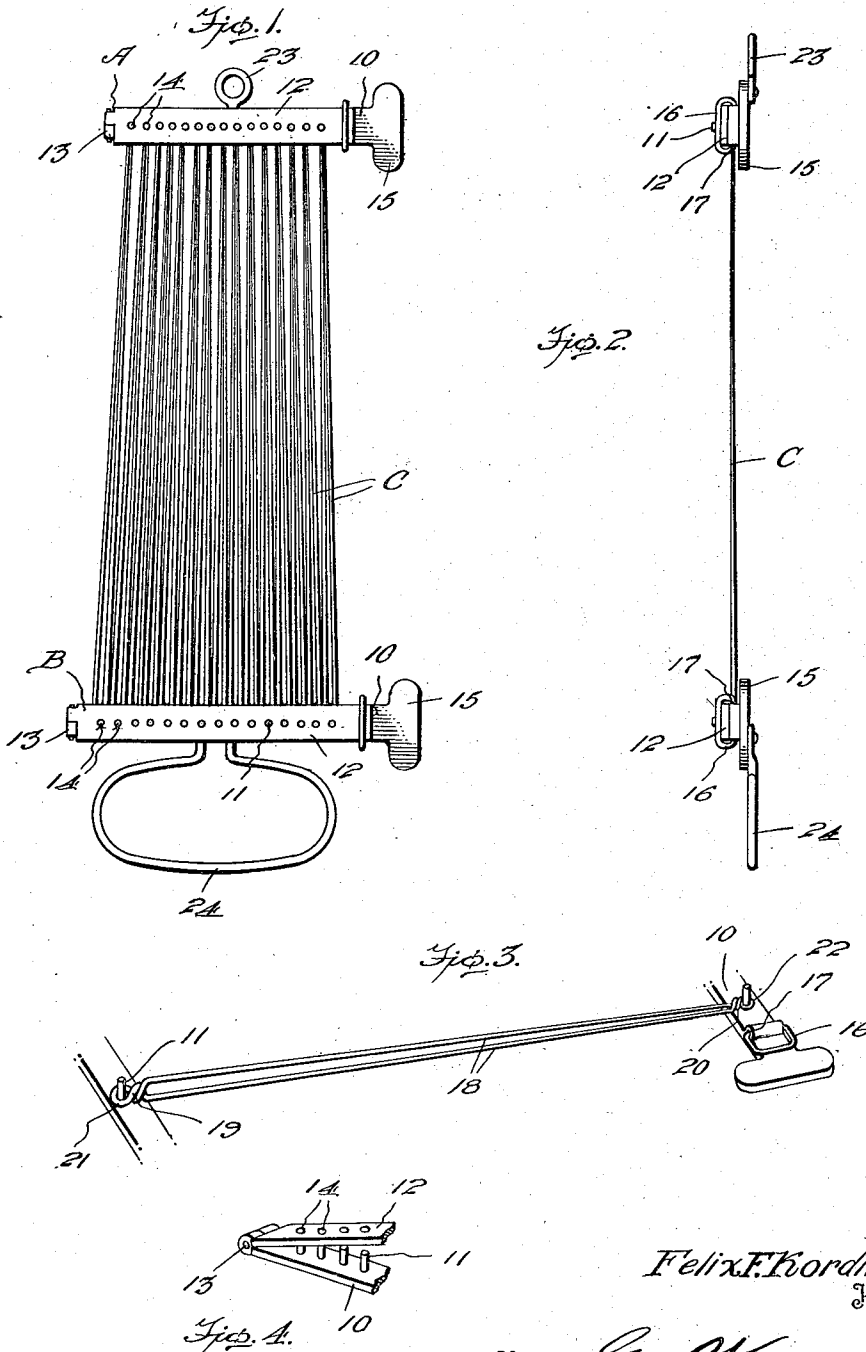


F. F. KORDINA.  
 COMB CLEANER.  
 APPLICATION FILED NOV. 23, 1916.

1,228,221.

Patented May 29, 1917.



Felix F. Kordina.  
 Inventor

By *Geat. Kimmel.*  
 Attorney

# UNITED STATES PATENT OFFICE.

FELIX F. KORDINA, OF LEBANON, OREGON.

COMB-CLEANER.

1,228,221.

Specification of Letters Patent.

Patented May 29, 1917.

Application filed November 23, 1916. Serial No. 133,019.

*To all whom it may concern:*

Be it known that I, FELIX F. KORDINA, a citizen of Austria-Hungary, residing at Lebanon, in the county of Linn and State of Oregon, have invented certain new and useful Improvements in Comb-Cleaners, of which the following is a specification.

The present invention relates to comb cleaners and has for its primary object the provision of a device of this character which is simple in construction, strong and durable, cheap to manufacture and effective in use.

Another object of my invention is to provide a comb cleaner in which the cleaning elements are readily removable for renewal or repair.

A further object of my invention is to provide a novel means for retaining the comb cleaning elements in parallel spaced relation to form the structure of the cleaner.

Other objects and advantages to be derived from the use of my improved comb cleaner will appear from the following detailed description and the claims, taken with an inspection of the accompanying drawing, in which:

Figure 1 is an elevational view in plan of a comb cleaner embodying the improvements of my invention;

Fig. 2 is a side elevational view of the same;

Fig. 3 is an enlarged fragmental perspective of one of the cleaning elements and a portion of the supporting means therefor; and

Fig. 4 is an enlarged detail fragmental perspective of one of the holding frames for the cleaning element.

Referring more particularly to the drawing, wherein similar characters of reference designate like and corresponding parts throughout the various views, A and B designate the end supporting frames of my improved comb cleaner, the comb retaining elements of said frames A and B being practically identical, therefore necessitating a description of but one of the same. A portion of one of the frames is best shown in Fig. 4, the same having a base portion 10 provided with a plurality of outwardly projecting short pins 11. A retaining plate 12 is hingedly connected at 13 to one free end of the base plate 10, said plate 12 being provided with a plurality of apertures 14 complementary to the pins 11 and for the reception of the same.

Referring to Fig. 1 the ends of the base plates 10 remote from the pins are provided with enlargements 15 forming handle portions to facilitate separation of the plates 10 and 12. To retain the plates in parallel intimate engagement I provide loop members 16 hingedly connected as at 17 with the base plates 10, said members 16 being adapted to engage the free ends of the plates 12 and maintain the same intimate with the base plates 10.

The cleaning elements are designated C in their entireties, one of the same being shown in detail in Fig. 3. Said cleaning element preferably is formed from a single strand of wire having adjacent slightly diverging portions 18 twisted as at 19 and 20 to form eyes 21 and 22. The portions 18 of the strand of wire are preferably smaller in diameter at the frame A than at the frame B and said portions 18 are in divergent relation, so that when a plurality of the cleaning elements C are combined as shown in Fig. 1 a structure having a general tapering appearance will be afforded. Hence the difference in the length of the frames A and B.

To support the device when in use I provide an eye 23 carried by the base plate of the frame A and a wire handle 24 carried by the base plate on the frame B so that the device may be supported in use similarly to the manner of suspending a razor strop for use. The teeth of the comb to be cleaned are drawn between the wires of the cleaning element C, thereby effectively removing anything between the teeth of the comb. By the arrangement of the cleaning element to form a tapering structure a more effective cleaning of the comb is afforded.

From the above description taken in connection with the accompanying drawing, it is thought that a clear and comprehensive understanding of the construction, operation and advantages of my invention may be had, and while I have shown and described the device as embodying a specific structure, I desire that it be understood that such changes may be made in said structure as do not depart from the spirit and scope of the invention as claimed.

Having thus fully described my invention, what I claim as new and desire to secure by Letters Patent, is:—

1. In a comb cleaner, the combination of a pair of frames having supporting pins and clamping sections, and a plurality of

tapering cleaning elements arranged in divergent relation, the free ends of said elements having loops to engage said pins, and said clamping sections engaging said loops to retain the cleaning elements in connection with said frames.

2. In a comb cleaner, the combination of a pair of frames having supporting pins and clamping sections, a plurality of tapering cleaning elements arranged in divergent relation to form a tapering structure, the free ends of said elements having loops to engage said pins, said clamping sections having openings to accommodate said pins, and means for maintaining said clamping sections in engagement with said loops to retain the cleaning elements in connection with the frames.

3. In a comb cleaner, the combination with a pair of frames having supporting pins and clamping sections, of a plurality of cleaning elements for association therewith, said cleaning elements being formed of strands of wire tapering and arranged in divergent pairs, the free ends of the strands being twisted and formed to provide loops to engage the pins, and said clamp mem-

bers being adapted to engage said loops to retain the cleaning elements in connection with said frames.

4. In a comb cleaner, the combination of a pair of frames having supporting pins and clamping sections, a plurality of cleaning elements formed of strands of wire, said strands of wire being looped to form divergent sections, said sections of said strands being twisted at their free ends forming loops to engage said pins, and means carried by said frames to engage said clamping sections and maintain the same in snug engagement with said pins and said loops to connect the cleaning elements with the frames.

5. In a comb cleaner, the combination of a pair of frames comprising base members, pins extending from said base members, and retaining plates hingedly connected with said base plates, said base plates having openings therein to receive said pins, and a plurality of tapering cleaning elements arranged in divergent relation engaging said pins.

In testimony whereof, I affix my signature hereto.

FELIX F. KORDINA.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."