

(No Model.)

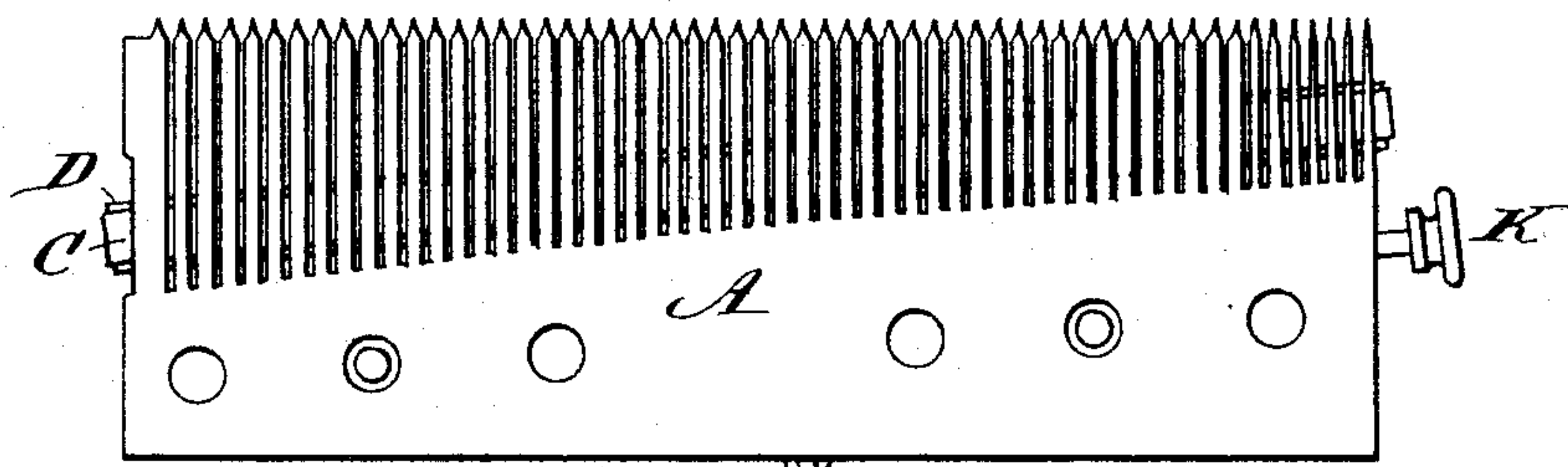
A. SUEUR.

ZITHER ATTACHMENT FOR MUSIC BOXES.

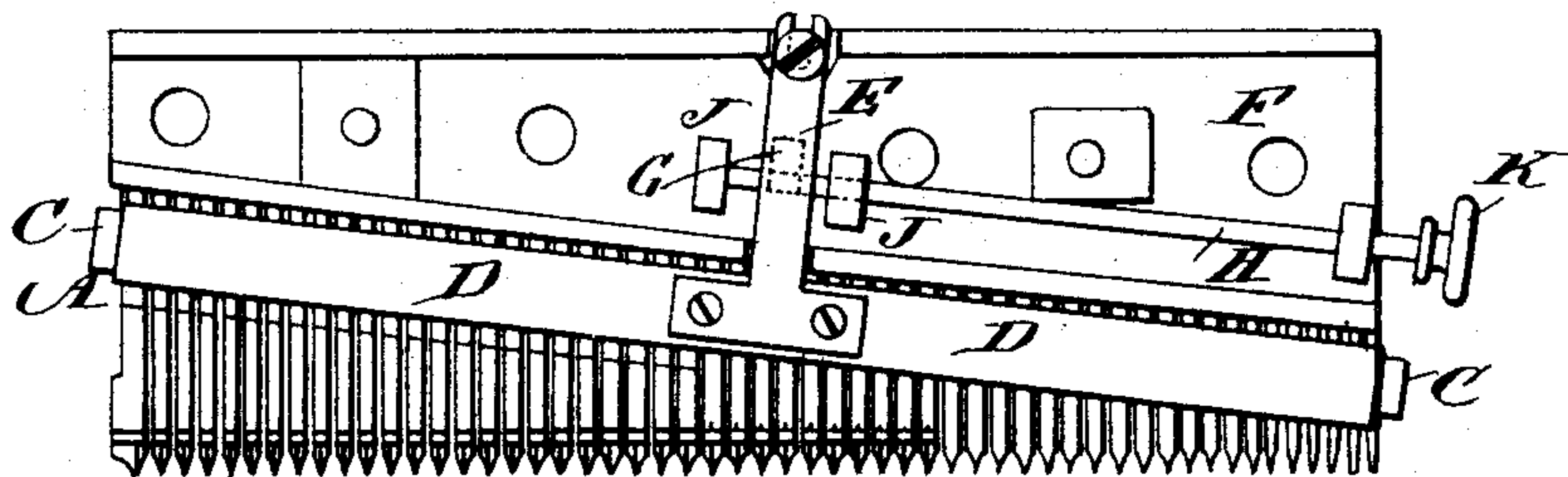
No. 342,979.

Patented June 1, 1886.

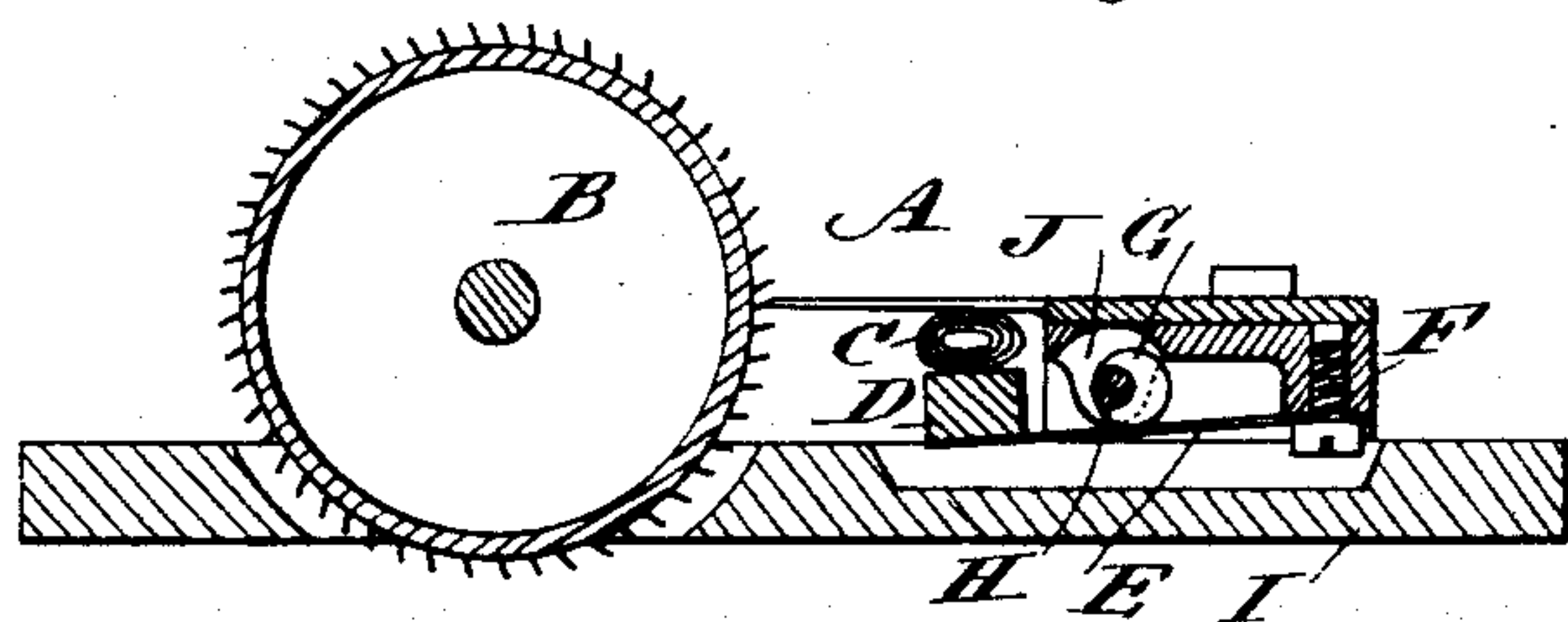
*Fig. 1*



*Fig. 2*



*Fig. 3*



WITNESSES:

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INVENTOR:

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# UNITED STATES PATENT OFFICE.

ALFRED SUEUR, OF NEW YORK, N. Y., ASSIGNOR TO M. J. PAILLARD & CO.,  
OF SAME PLACE.

## ZITHER ATTACHMENT FOR MUSIC-BOXES.

SPECIFICATION forming part of Letters Patent No. 342,979, dated June 1, 1886.

Application filed November 24, 1885. Serial No. 183,856. (No model.)

*To all whom it may concern:*

Be it known that I, ALFRED SUEUR, of the city, county, and State of New York, have invented a new and useful Improvement in Zither Attachments for Musical Boxes, of which the following is a full, clear, and exact description.

The zither attachments for musical boxes have usually been applied above the combs; but this is objectionable, as the said attachments cover part of the combs, mar the appearance of the instrument, and are rather clumsy and bulky.

The object of my invention is to provide a new and improved zither attachment which is concealed, and does not cover the comb or any part of the same.

The invention consists in the combination, with a musical box, of a zither attachment placed below the comb and provided with a device for adjusting it, as will be fully described and set forth hereinafter, and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of the comb of a musical box provided with my improved zither attachment. Fig. 2 is a plan view of the under side of the same. Fig. 3 is a cross-sectional view through the mechanism of the musical box.

The comb A, and the pin-cylinder B, and the mechanism for operating the same are of the usual construction.

The zither attachment consists of the roll C, of paper or like flexible material, having a certain elasticity, which roll is secured on a strip, D, of wood or metal, placed below the teeth of the comb A in such a manner that the said paper roll can be brought in contact with the under sides of the teeth of the comb. The strip D is secured on the free end of the flat spring-strip E, having its opposite end secured to the under side of the metal piece F on which the comb is fastened in the usual manner, the said spring pressing the roll C against the under sides of the teeth. The spring-strip E rests on the edge of the cam G, mounted on the shaft H, mounted to turn in the lugs J on

the under side of the metal piece F, and extending to the end of the same, and provided on its outer end with the handle-button K, by means of which the said shaft and the cam on the same can be turned.

The roll C may be parallel with the inner ends of the teeth, as shown, or may be placed at an angle to the line of the inner ends of the teeth, so that it will be different distances from the inner ends of the several teeth, and will deaden the sounds of some teeth more than others.

When the zither attachment is applied—that is, when the roll C rests against the teeth—it deadens the sounds and produces the zither effect. The spring-strip E keeps the roll pressed against the teeth, and when the zither attachment is to be thrown out of gear the shaft H is turned in such a manner as to cause the cam G to press the spring E downward, whereby the roll C is moved from the teeth and in no way interferes with the vibrations of the same.

The zither attachment is not exposed to view and does not cover any parts of the comb.

When the attachment is applied, an observer cannot see what produces the peculiar musical effect, which makes the box more interesting.

My improved attachment is much simpler than the attachments on the top of the comb and costs less.

Providing the zither attachment below the comb is of special advantage in music-boxes having removable pin-cylinders—such as changeable or interchangeable cylinders—as the zither attachment is not in the way of the cylinder when placed below the comb, whereas it is in the way and frequently causes loss of time in changing cylinders when it is on the top of the comb, as has been customary.

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

1. A musical box having a zither attachment below the teeth of the comb, substantially as herein shown and described.

2. A musical box provided with a zither attachment below the teeth of the comb and a shaft below the comb for adjusting said attachment, substantially as herein shown and described.



3. A musical box provided with a zither attachment below the teeth of the comb, and with a device below the comb for adjusting the said attachment, substantially as herein shown and described.

4. A musical box having a zither attachment below the teeth of the comb and a spring for pressing said attachment against the teeth of the comb, substantially as herein shown and described.

5. A musical box provided with a zither attachment below the teeth of the comb, a spring for pressing said attachment against the teeth, and a cam for pressing the spring in the direction from the under side of the comb, substantially as herein shown and described.

6. The combination, with the pin-cylinder and comb of a musical box, of a zither attachment below the teeth of the comb, a spring secured to said attachment and to the support

of the comb and pressing the attachment against the under sides of the teeth, a shaft on the under side of the support of the comb, and a cam on said shaft and resting on the spring, substantially as herein shown and described.

7. The combination, with the pin-cylinder and the comb of a musical box, of a zither attachment below the teeth of the comb, a spring secured to said attachment and to the support of the comb and pressing the attachment against the teeth, a shaft on the under side of the support of the comb extending to the end of the support, and provided on its outer end with a handle-button, and of a cam on said shaft resting against the spring, substantially as herein shown and described.

ALFRED SUEUR.

Witnesses:

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