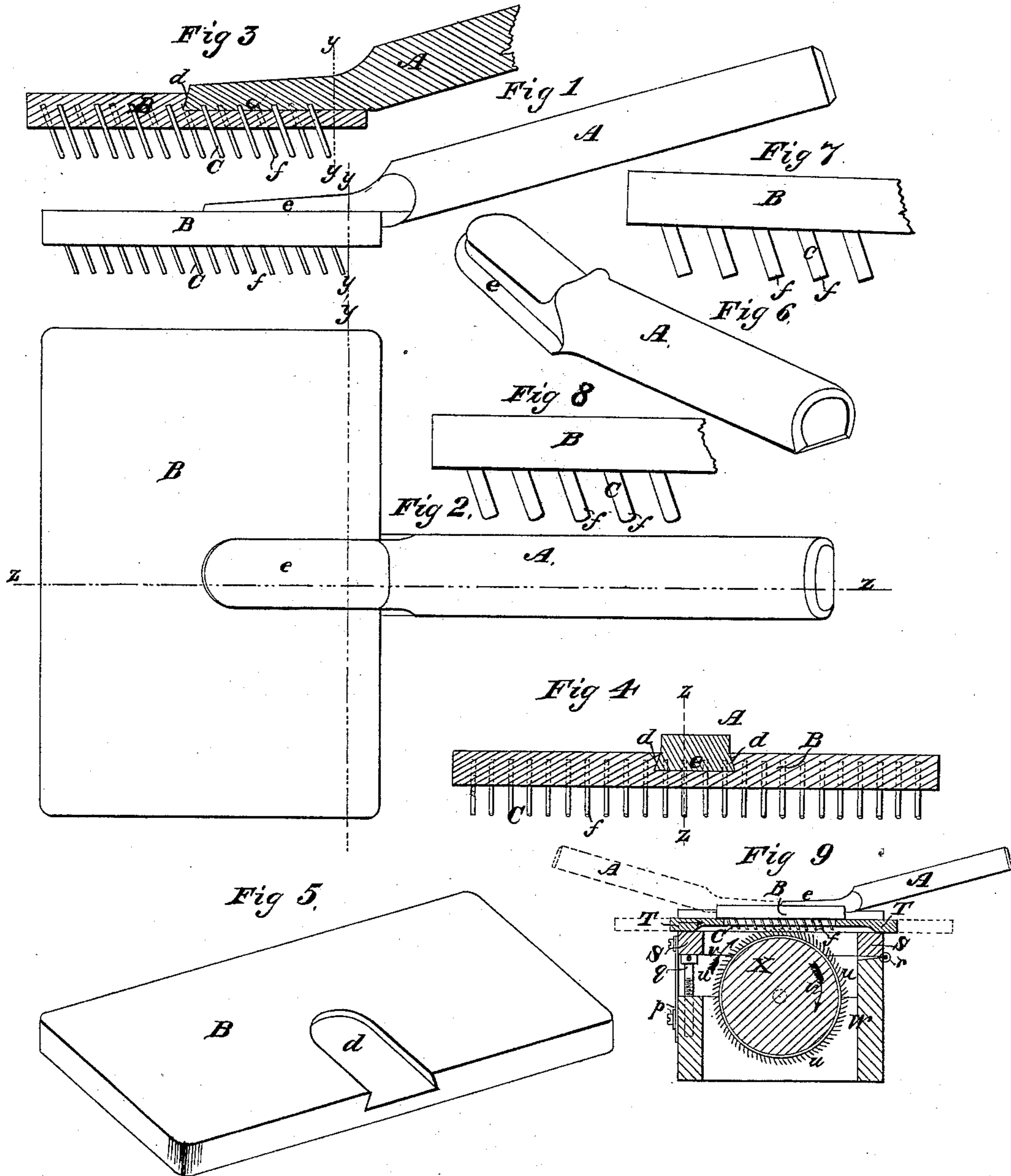


E. S. & G. F. Ellis.

Curry Comb.

N^o 44,791.

Patented Oct. 25, 1864.



WITNESSES,

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UNITED STATES PATENT OFFICE.

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TROY, NEW YORK.

HAND-CARD.

Specification forming part of Letters Patent No. 44,791, dated October 25, 1864.

To all whom it may concern:

Be it known that we, EDGAR S. ELLS, of Fairhaven, in the county of Rutland and State of Vermont, and GEORGE F. ELLS, of the city of Troy, in the county of Rensselaer and State of New York, have jointly invented certain new and useful Improvements in Hand-Cards, of which the following is a full and exact description, reference being had to the accompanying drawings, in which—

Figure 1 is an edge view; Fig. 2, a back view; Fig. 3, a section at or about the lines *z z* in Figs. 2 and 4, and Fig. 4 a section at or about the line *y y* in Figs. 1, 2, and 3, all of a hand-card embodying our invention; Fig. 5, a perspective view of the back side of the wooden stock, and Fig. 6 a like view of the wooden handle of the same card; Fig. 7, an enlarged view of a part of the said card before the edges of the ends of its wire teeth were rounded, and Fig. 8 a like view of the same card with the edges of the ends of the wire teeth rounded or finished; and Fig. 9, a section, on a diminished scale, of an apparatus that we use in rounding and smoothing the outer ends of the wire teeth in the card, with the card in position thereon.

Like parts are marked by the same letters in all the figures.

One part of our invention consists in fastening a wooden handle, A, in and to a wooden card-stock, B, in making a hand-card with separate wire teeth C, forced or driven endwise into the wooden stock by first forming a suitable mortise or recess, *d*, Fig. 5, in a part of the wooden stock where some of the wire teeth are to penetrate or be inserted, and making the said wooden handle with a tenon or shank, *e*, Fig. 6, which will fit into the said mortise or recess in the stock, and then putting the said shank *e* of the handle into the said recess *d* of the stock, and finally driving or forcing the wire teeth *c* endwise into the card-stock and handle so that some of the wire teeth *c*, Fig. 3, will penetrate and remain in both the stock B and the shank *e* of the handle, and thereby firmly hold and fasten the wooden stock and handle together in a very neat, strong, and durable manner without any necessity or expense of using glue, tacks, nails,

or screws, as heretofore commonly employed in fastening together the wooden stocks and handles of hand-cards, and without employing any other device or devices than the wooden stock and handle and wire card-teeth themselves.

When wire card-teeth are first cut off from long lengths of wire, and then stuck in the stock of a hand-card, the projecting ends *f* of the wire teeth in the card-stock are then generally quite rough and sharp at their edges, as indicated by Fig. 7, so that when the card is first used in carding or currying horses or cattle, or in combing or brushing the curly hair on the heads of negroes, the sharp or rough ends of the wire teeth of the card will then catch into and cut, tear, or scratch the skin or hair, more or less disagreeably and injuriously.

Another part of our invention consists in rounding and smoothing the projecting ends of the cut off wire teeth in a hand-card by brushing them by means of a rotary wire toothed card, X, Fig. 9 or its equivalent, so as to thereby remove the sharp and rough edges from the projecting ends of the wire-teeth of the hand-card, and thus very quickly and cheaply make the latter so that it will not disagreeably or injuriously cut, tear, or scratch the skin or hair when the hand-card is first used.

In Fig. 9 of the accompanying drawings the rotary brushing-card X is a cylinder covered by stout machine-card clothing, and revolved on its axis in a supporting-frame, W, in a direction (shown by the arrow *v*) contrary to the set or hook of the wire teeth, *u*, thereof.

T is a sliding frame on which a card, A B C, is placed (first one way and then the opposite) and moved by hand across the rotary card X, so as to thereby make the teeth *u* of the latter brush against and past the ends of all the teeth *c* of the hand-card in succession. The sliding frame T is mounted on a frame, S, which is hung at one side by hinges *r*, and made adjustable on the other side by set-screws *q*, and clamps *p*, so that the frame T can be thereby readily adjusted to make the teeth *u* of the rotary card X act properly against the ends of the wire teeth *c* of vari-

ous sizes of hand-cards placed on the said sliding frame.

What we claim as new and of our joint invention, and desire to secure by Letters Patent, is—

1. A card having a wooden handle, A, fastened in a mortise or recess, d, in a wooden stock, B, by means of the wire teeth c of the card, substantially as herein described.

2. A hand-card having the projecting ends

of its wire teeth brushed smooth and rounding, substantially as herein described.

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