

B. Hotchkiss,
Making Matches.

N^o 48,176.

Patented June 13, 1865.

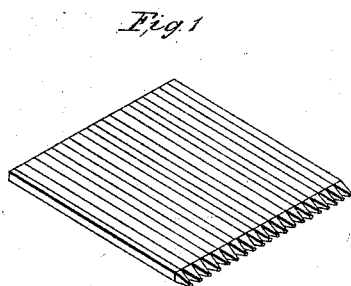
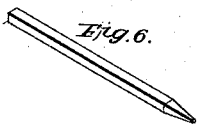
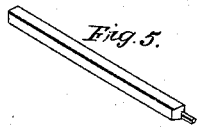
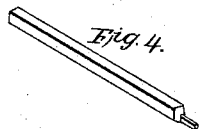
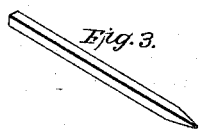
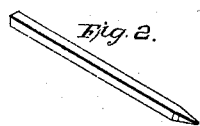
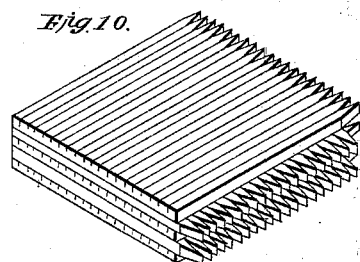
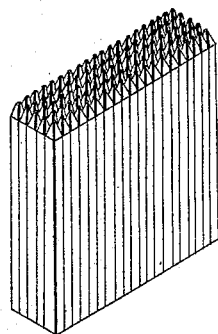


Fig. 7.



Witnesses.
 Jas. A. Austin.
 R. Fitzgerald.

Inventor.
Benmt. Hotchkiss.

UNITED STATES PATENT OFFICE.

BENNET HOTCHKISS, OF NEW HAVEN, CONNECTICUT.

IMPROVEMENT IN MATCH-SPLINT CARDS.

Specification forming part of Letters Patent No. 48,176, dated June 13, 1865.

To all whom it may concern:

Be it known that I, BENNET HOTCHKISS, of the city and county of New Haven, in the State of Connecticut, have invented a new and useful Improvement in Friction-Matches, as a new article of manufacture; and I do hereby declare that the following is a full, clear, and exact description of the construction, character, and operation of the same, reference being had to the accompanying drawings, which make part of this specification, in which—

Figure 1 is a perspective view of one of the cards or planchets of match-splints, showing the form and position of the slits or cuts to facilitate the removal of each splint from the card for use, and the operating ends as beveled on all sides in a pyramidal form. Fig. 2 is a perspective view of one splint after being removed from the card, showing the operating end reduced on two sides, substantially parallel, and beveled on one side. Fig. 3 is a perspective view of the same, showing the operating end beveled on two sides. Fig. 4 is a perspective view of the same, showing the operating end reduced on three sides. Fig. 5 is a perspective view of the same, showing the operating end reduced on four sides. Fig. 6 is a perspective view of the same, showing the operating end like Fig. 1, except the beveling-lines are slightly curved. Fig. 7 is a perspective view of a pack of the cards or planchets, like Fig. 1, ready for dipping. Fig. 8 is a perspective view of one of the splints, showing the operating end beveled on two sides, like Fig. 3, except the beveling-lines are slightly curved. Fig. 9 is a perspective view of the same, showing the operating end beveled two ways or on two opposite sides. Fig. 10 is a perspective view of a pack of the cards or planchets, where the operating ends of the splints are as shown in Fig. 9, showing how the pack is made proper for dipping when that shaped point is used.

My improvement consists in making the match-splints of timber cut into the form of cards or planchets of the proper thickness and length for match-splints, and of a convenient width for placing and handling in packages, and in cutting or slitting them substantially in the direction of the grain of the timber (into

strips of the proper width for a match-splint) through the whole length of the card, and nearly through the whole thickness, so that each splint may be conveniently split off with the thumb and finger, and in beveling or reducing one end of each of what is to be one splint, so as to bring it nearly to a point, so that when several of the cards are packed together the points will be perfectly separate and suited for dipping, and after dipping for market, without opening the original packs as dipped.

I make the cards or planchets for the match-splints of pine or any other suitable timber, of the proper length and thickness, as indicated in Fig. 1, &c., and of a width convenient for packing, dipping, and vending, and slit and point them with any suitable cutters or machinery.

I cut or slit the card or planchet substantially in the direction of the grain of the timber through the whole length and nearly through the whole thickness, as indicated in Fig. 1, &c., so as to leave them in a complete card for handling, packing, dipping, &c., and yet render them easy of separation by the thumb and finger when a match is wanted for use; and at one end I bevel or scarf off each splint on all sides in a pyramidal form, so that the points or ends will be about one-eighth of the area of the whole end or cross-section, all as indicated in Fig. 1. When any number (as five or more) of these cards are packed together the beveled ends or extreme points will be sufficiently distant from each other for dipping, as shown in Fig. 7, and the packages may be tied round with twine, or held in a clamp, or in the hand, for dipping, and after being dipped they may be stored for sale or use in boxes, or rolled up in paper, or otherwise, without opening the original packages, as when dipped.

If desired, the operating ends or points of the splints may be beveled, scarfed, or reduced in any other of the ways represented in Figs. 2, 3, 4, 5, 6, or 8, or in any other form which convenience or fancy may dictate; but when the beveling or reducing is done all on one side of the card, as indicated in Figs. 2, 3, 4, or 8, care must be taken in packing to put all the beveled sides the same way, so as to keep the points separate for dipping.

If the ends of the splints are only beveled or reduced in the direction across or at right angles to the card or planchet, so as to make the points in that direction equal to the thickness of the card, as represented in Figs. 9 and 10, they are not suitable for dipping in one regular package, as before described, but the package must be made up by alternately crossing the cards and having the beveled points of the splints project on two sides, as represented in Fig. 10, when the package will require dipping on each of the two sides where the beveled points project; but I prefer the pyramidal form of points, as first described and represented in Figs. 1 and 7, as it is the most convenient to make and to handle, and that form of point is much less liable to break when lighting.

The advantages of my improvement consist in that these cards or planchets may be made from the ribbons which are cut from a round log or stick in the direction of the periphery, in the manner of cutting veneers, or ivory from tusks, and thus at much less cost for timber; and in that by pointing and slitting the cards in this manner there is much less waste of timber than in any other mode.

What I claim as my invention, and desire to secure by Letters Patent, as a new article of manufacture, is—

Making the cards of match-splints substantially as herein described and set forth.

BENNET HOTCHKISS.

Witnesses:

ELIZUR E. CLARKE,
R. FITZGERALD.