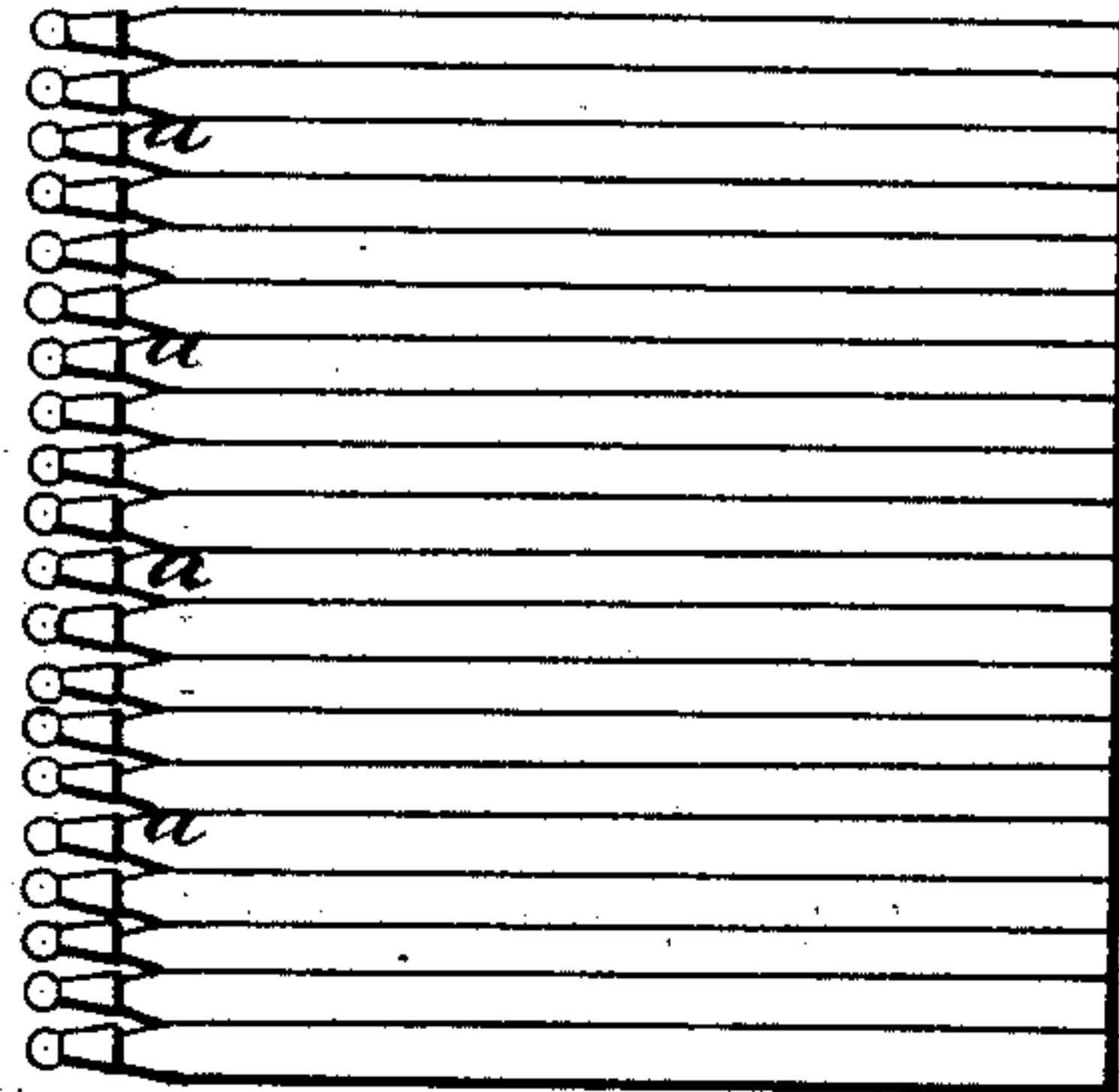


E. ANDREWS.  
Making Matches.

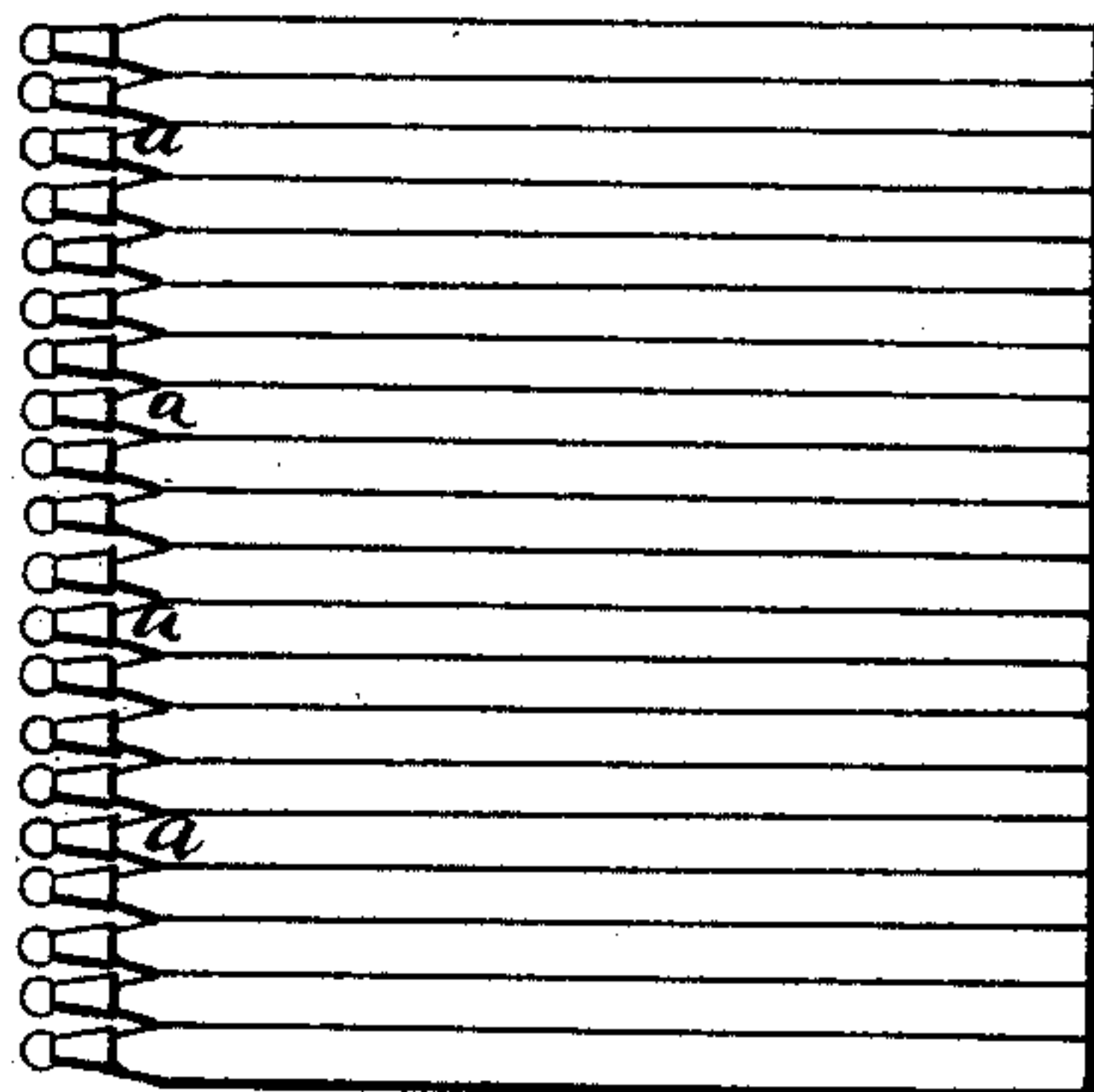
No. 69,891.

Patented Oct. 15, 1867.

*Fig. 1.*



*Fig. 2.*



Witnesses:

*James E. Larnald*  
*Alphon G Rogers*

Inventor:

*Emery Andrews*

# United States Patent Office.

EMERY ANDREWS, OF PORTLAND, MAINE.

*Letters Patent No. 69,891, dated October 15, 1867.*

## IMPROVEMENT IN THE MANUFACTURE OF MATCHES.

*The Schedule referred to in these Letters Patent and making part of the same.*

Be it known that I, EMERY ANDREWS, of Portland, county of Cumberland, State of Maine, have invented a new and useful Improvement in the Manufacture of Friction-Matches; and I do declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to use the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a plan of a number of matches, in the proper position for gluing the non-igniting ends together.

Figure 2 is a similar view of the same after the ends have been glued together.

The object of this invention is to slightly unite a number of matches or match-splints, in the form of a card of matches. In order to effect this the requisite number of splints is placed side by side, either before or after dipping in the proper igniting compounds, in any suitable match-dipping frame or rack, either by hand or by machinery, in such a manner that they will touch or nearly touch each other. The non-igniting ends are then slightly dipped in liquid glue, or any suitable cement, and the matches are then ready for packing.

Fig. 1. *a a a* represent a number of splints cut from a card prepared under the Letters Patent, No. 63,197, granted Emery Andrews and William Tucker, March 26, 1867. Fig. 2 shows the same after the non-igniting ends have been glued or cemented.

By preparing matches in the manner previously described they may be handled and packed for transportation or sale with the same facility, and at no greater expense, than the common card-matches, and the considerable cost of boxes or bags necessary for packing separated splint-matches saved, and the cost of manufacturing materially reduced. At the same time they have the advantages of splint-matches, for by crushing a card of them in the hand they will be nearly all separated, or they may be taken from the card as required very easily, and without danger of breaking, as is often the case with other card-matches.

I am aware that block-matches have been made by gluing over the end of a block of wood, which was to be split into sticks, for the purpose of holding these sticks together after they were split; but I am not aware that match-splints have ever been united in the manner and for the purpose specified. And perhaps I should say that I believe this invention can be used to great advantage only in connection with patents heretofore granted to Andrews and Tucker for improvements in matches and match machinery.

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

Uniting match-splints in the form of a card, substantially in and for the purpose specified.

EMERY ANDREWS.

Witnesses:

JAMES E. FEMALD,

ALPHEUS G. ROGERS.