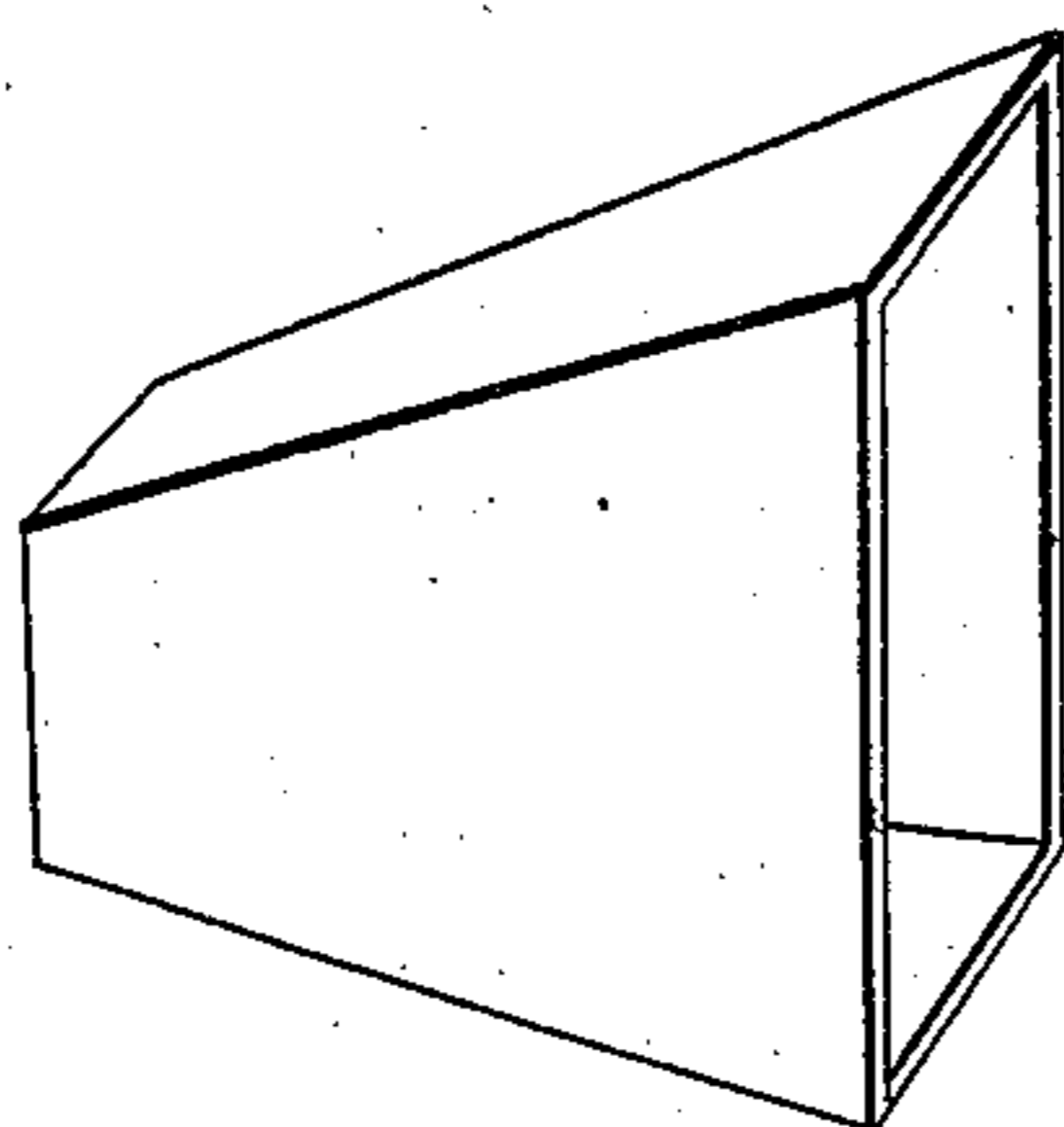
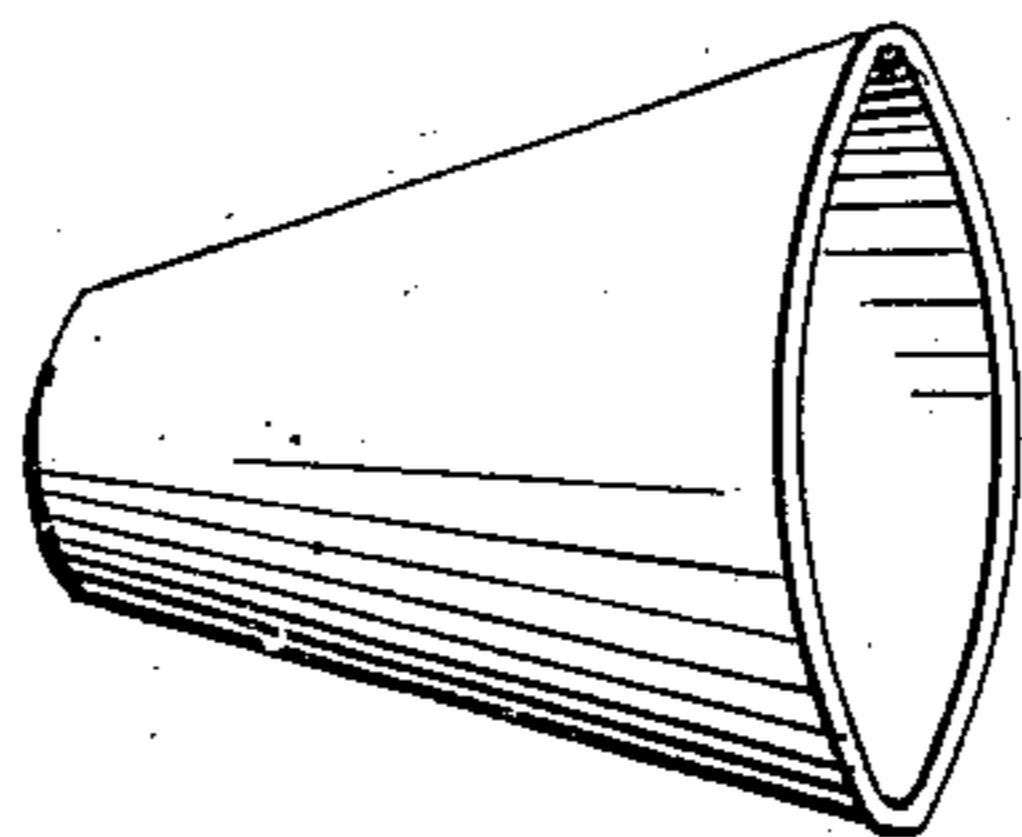


J. Hayfield.

Dipping Matches.

N^o 219.

Patented Jan. 3, 1837.



UNITED STATES PATENT OFFICE.

JEHU HATFIELD, OF STILLWATER, NEW YORK.

MODE OF DIPPING OR CHARGING LOCOFOCO MATCHES.

Specification of Letters Patent No. 219, dated June 3, 1837.

To all whom it may concern:

Be it known that I, JEHU HATFIELD, of Stillwater, in the county of Saratoga and State of New York, have invented a new
5 and useful Improvement in Manufacturing Matches of the Description Called "Locofoco Matches."

Before describing this improvement, it will be proper to describe that part of the
10 process in which the improvement is to be used.

When the ends of the matches are charged with sulfur, and dried, the finishing operation consists in dipping the ends so charged,
15 in the igniting compound, which is in an unctious or paste like form. This has been heretofore usually effected by the hand, taking several, say perhaps twenty or thirty by the uncharged ends, and adjusting the
20 bottoms so that they range in a somewhat convex line, and by turning the hand a little, dipping all the sulfured ends in the said compound. It will be seen that this operation is slow and inaccurate, and that by the
25 irregularity of muscular action, some will be dipped deeper, and take up more of the igniting compound, than others, which will of course effect considerable loss, as the said compound is expensive and as a very small
30 quantity is sufficient if properly applied. It should also be understood that however they may be dipped, and in whatsoever quantities, the bottom ends must be separated a small distance from each other, that the
35 said igniting compound may take a little hold of the sides.

Now the instrument by which I perform this operation, and the invention and use of which constitutes this improvement, is simply a tube of tin, brass, wrought or cast iron,
40 or any other suitable substance, of a conical

shape, diverging from the center or apex to any convenient size at the bottom or mouth, and under such angle as that, when a sufficient quantity of matches to charge said
45 tube are gathered together, and the ends to be dipped are duly adjusted; by entering the upper or unsulfured ends of the matches into the mouth of the tube, and pressing them in till they meet the sides, they may
50 be held sufficiently by their pressure and consequent friction, by the convergency of the sides, and the bottom or lower end of said matches, by the same cause will be regularly and sufficiently separated; and
55 thereby, not only a much greater quantity can be dipped at once, but an important saving effected in the compound. The angle for the divergency of this tube may be about thirty degrees, but precision is not essen-
60 tial. It may also be of any length, shape and proportions, to suit the fancy or convenience of the constructor; provided always, that its angle of divergency be such as to hold the matches, and sufficiently separate the points. Its shape may be conical
65 or pyramidal, and its mouth may be round, oval, square, oblong or three square, or of any other form; and it may be either continued to a point or apex, or the top may be
70 left off, making it the frustum of a cone, or of whatsoever form it presents.

The sole point I hereby claim as my invention is—

The use of a tube with a funnel shaped
75 or diverging mouth, by which an indefinite quantity of matches may be held and dipped at once, as above specified.

JEHU HATFIELD.

Witnesses:

STEPHEN VERNAM,
SAM BLYDENBOUGH.