

United States Patent Office.

JOHN L. KENDALL, OF NEW YORK, N. Y., ASSIGNOR TO HIMSELF AND R.
H. TRESTED, OF SAME PLACE.

Letters Patent No. 61,074, dated January 8, 1867.

IMPROVEMENT IN ELECTROTYPE DIES FOR MAKING IMITATION STRAW GOODS, &c.

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

TO ALL WHOM IT MAY CONCERN:

Be it known that I, J. L. KENDALL, of the city, county, and State of New York, have invented a new and useful improvement in the Manufacture of Dies for Imitation Straw Goods; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same.

This invention relates to an improved method of procuring dies and counter dies for the purpose of embossing fabrics to imitate straw.

First, take the straw bonnet or fabric to be imitated and apply to the inside or back a composition of two-thirds beeswax and one-third gutta percha, in a hot state, taking care not to have it hot enough to strike through to the face. Next take a piece of stiff brass and coat it over with beeswax, then heat it hot, and lay the inside or back of the braided straw on said brass in the exact shape that the die is wanted and allow it to cool. Then take the straw and brass together and dip it into a solution of sulphuric acid and water, allow it to stay a few moments, take it out and let it drip. Then apply with a soft brush a coating of black lead, which will not adhere unless the straw has been dipped in sulphuric acid, allow it to stand until about dry, then rub with a stiff brush until a polish is produced. After this proceed as is the usual method of electrotyping. When the copper shell has become thick enough, which will usually be in about four days, take the straw, now covered with copper, from the bath, heat the brass plate, remove the coppered straw from the plate and then gently pull the straw and backing from the copper, saving the backing to be used again. When the straw is all removed you will have a perfect negative of the straw. Now take the shell, tin in the usual method known by every electrotyper, first coating the face of the shell with a composition of paper, clay, and soapstone, in equal parts, to prevent the tin from getting on the face. Next take the shell and set it in the exact position it is to be used, face down, upon an iron slab or table, then put a wooden frame around it about two inches higher than the top part of shell, and resting on the iron slab or table, putty the edges next to slab with the clay and soapstone, and place a weight on wooden frame to keep it from lifting, and pour the frame full of plaster of Paris, made about the consistency of thick cream. After this has set and before it gets hard remove the weight, turn the frame over, and if the plaster has got upon the inside take a knife and dig it out, taking care not to touch the copper shell. After it is cleared of plaster, be sure that the face of the shell is covered with the clay and soapstone, then pour into shell hot metal, made in the following proportions: 100 pounds lead, 12 pounds antimony, 30 pounds tin, say about a half a pint, and allow it to get hard, then pour a little more, and so on until it is full, or above the highest part of shell; as soon as it is set and before it is cool turn the frame over, taking care that the metal just poured in does not tumble out. After it is turned over on iron slab remove the wooden frame and knock off the plaster, which will leave the copper shell with tinned side up, covering the metal just poured in. Put your frame around this, put on the weights, putty up the edges, and pour hot metal into the frame until it covers the copper at least one-half inch. Allow this to cool, then plane off the bottom of die smooth, turn it over and remove the metal first poured in, trim off the edges up even to the copper, wash out the clay, &c., and you will have the die in the exact shape wanted.

Now, having procured the die, we wish to procure the counter die. Take the die, set it on an even place, cover the face of die with clay and soapstone, put your frame around again, or make a frame of the clay and soapstone around the edge of the copper, and pour hot metal into the die until the frame is full or until it covers the highest part of die at least one-quarter inch, allow it to cool, and then before removing it have it planned so as the top and bottom of die and counter die together will be the same thickness in every part. Now remove the counter, clean out the die, and it is ready for use. Prepared fabric pressed in the die with a rubber between die and counter die about one-sixteenth of an inch thick will be a perfect imitation of the straw before it was touched.

I claim as new, and desire to secure by Letters Patent—

The written described process of preparing a die and counter die for pressing textile and other fabrics; imitation to straw, as set forth.

JOHN L. KENDALL.

Witnesses:

WM. F. McNAMARA,

ALEX. F. ROBERTS.