

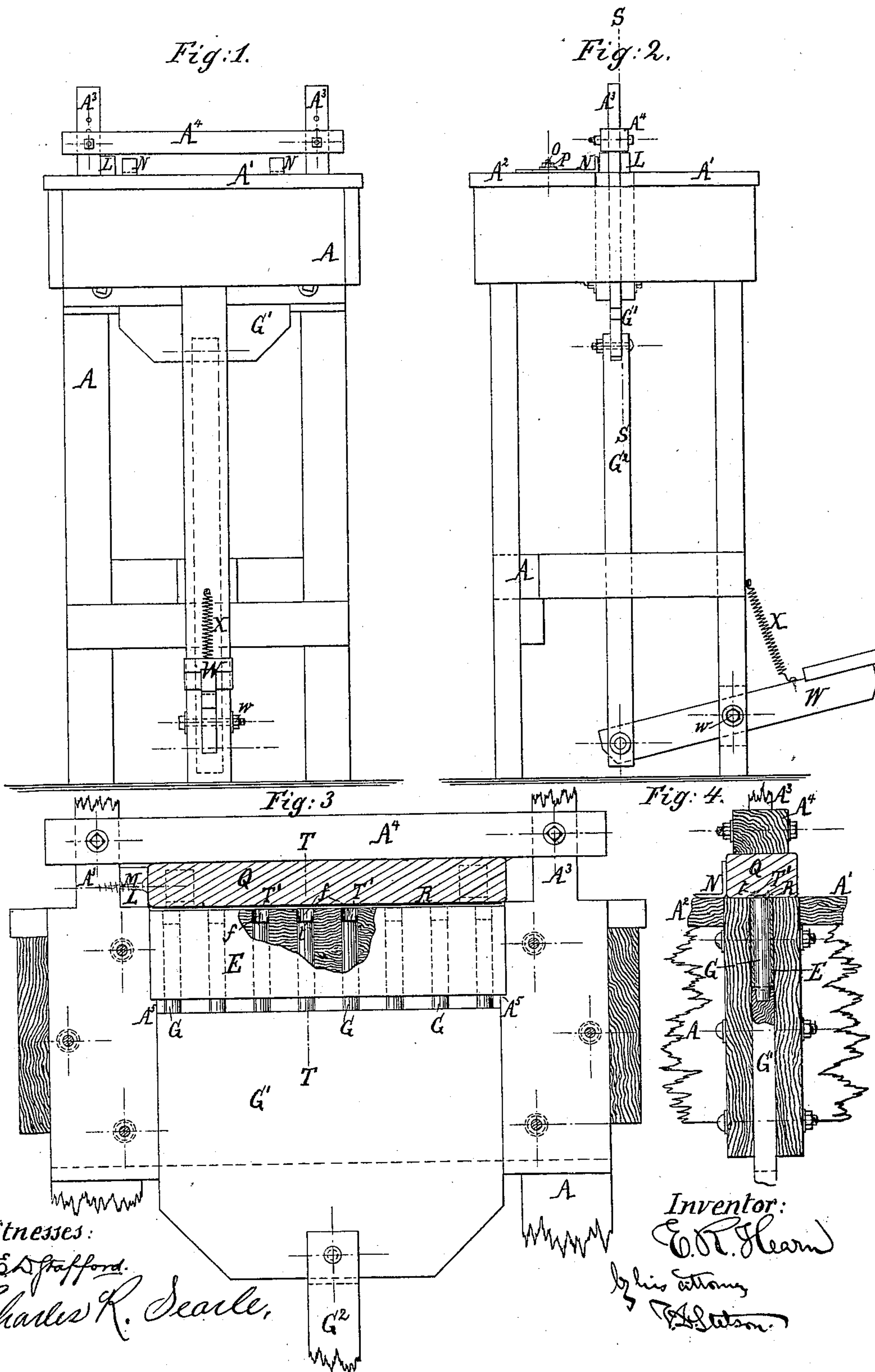
(No Model.)

E. R. HEARN.

MACHINE FOR ATTACHING TAGS AND LABELS TO PLUG TOBACCO.

No. 253,284.

Patented Feb. 7, 1882.





# UNITED STATES PATENT OFFICE.

EDWIN R. HEARN, OF JERSEY CITY, NEW JERSEY, ASSIGNOR TO P. LORILLARD & CO., OF SAME PLACE.

MACHINE FOR ATTACHING TAGS AND LABELS TO PLUG-TOBACCO.

SPECIFICATION forming part of Letters Patent No. 253,284, dated February 7, 1882.

Application filed August 9, 1881. (No model.)

*To all whom it may concern:*

Be it known that I, EDWIN R. HEARN, of Jersey City, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements relating to Machines for Attaching Tags and Labels to Plug-Tobacco, of which the following is a specification.

My improved machine allows the attachment of tin tags and strips of paper, commonly used with them, to plugs of tobacco with great rapidity and perfection.

I employ a platform provided with suitable gages, upon which the plugs of tobacco are successively placed to receive the tin tags and the paper. The platform is loosely formed with a long slot, in which is inclosed a separate strip of wood or other suitable material, with apertures of the same shape as the tags and but little larger, into which apertures a series of vertical posts are received from below. When the machine is idle the upper ends of the posts are a little lower than the loose strip, and the loose strip is a little lower than the upper surface of the platform. The tags are placed upon the upper end surfaces of the posts, with the prongs projecting upward. The strips of paper are placed upon the loose strip with what is to be its exterior face downward, being kept in position by the fact that the edges of the platform which surround it are higher than the strip on which it rests, and the plug of tobacco is placed upon the platform. The machine is operated to bring the tops of the posts and the loose piece flush with each other and with the surfaces of the platform, the tobacco being held firmly in contact therewith. By this means the claws of the tags are pressed through the paper into the tobacco, and the paper, being previously prepared on the upper face with gum or paste, is strongly cemented to the tobacco.

The accompanying drawings form a part of this specification, and represent the first form in which I reduced the invention to practice.

Figure 1 is a front view, and Fig. 2 a side view, of the entire machine. The remaining figures represent portions on a larger scale. Fig. 3 is a front view, partly in section, on the line S S in Fig. 2. This shows the parts of the machine in the same position as before, but

with the tags, paper, and tobacco in position ready for the machine to operate. Fig. 4 is a vertical section on the line T T in Fig. 3. This shows the condition after the machine has operated and has raised the posts and loose strip flush with the platform, fixing the tags and the paper or label firmly to the tobacco.

Similar letters of reference indicate corresponding parts in the figures.

A is the fixed frame-work, certain parts being designated by the additional marks A' A<sup>2</sup>, &c., when necessary.

A' and A<sup>2</sup> are respectively the front and back portions of the platform, on which the plugs of tobacco are successively placed to receive the tags and strip of paper.

G G, &c., are a series of vertical posts placed equidistant from each other and having their upper ends plane and even with each other. They are mounted in the space between the two portions A' and A<sup>2</sup> of the platform, and are all connected to a single stout cross-bar, G', which is guided by suitable supports in the fixed frame-work, and is operated by a pitman, G<sup>2</sup>, connected to a treadle, W, turning on a fixed center, w, below, and operated in one direction by a spring, X. The action of the attendant on the free end of the treadle depresses that end, when required, and raises the pitman G<sup>2</sup>, and with it the cross-bar G' and posts G.

E is a strip of hard wood or other suitable material loosely inclosed in a slot in the platform A' A<sup>2</sup>, and having a series of equidistant perforations or apertures, f, corresponding to the posts G. These apertures f, and the posts G which stand therein, are spaced according to the desired size of the subdivisions of the plug-tobacco. On the sinking of the posts the strip E descends a little lower than the platform and rests on stops A<sup>5</sup>, formed by slight internal shoulders in the fixed work at the sides of the machine. This brings the upper surface of the strip E a little lower than the upper surface of the platform A' A<sup>2</sup>, so that on a strip of paper being laid on E in its depressed position the paper will be confined laterally by the higher surfaces adjoining.

N N are gages adjusted on the back portion, A<sup>2</sup>, of the platform by means of screws O and nuts P, standing in slots therein. A further



gage, L, is held on the platform by a screw, M, inserted into one of the standards or fixed uprights, A<sup>3</sup>. The gages N can be so adjusted that the longitudinal center line of a piece of plug-tobacco which is pressed from the front against these gages will be exactly over the longitudinal center line of the strip E—that is to say, if it is adjusted for a piece of tobacco of a certain width, all the pieces of the same width need only be placed against the gage N, and their longitudinal central line will coincide with that of the perforated strip E.

A<sup>4</sup> is a stout cross-bar, mortised to receive the posts or uprights A<sup>3</sup>, and secured thereto at adjustable heights by stout screws extending through the bar A<sup>4</sup> and the posts A<sup>3</sup>, as shown. This bar A<sup>4</sup> serves as an abutment to press upon the upper surface of the tobacco, and resist the rise thereof when the latter is acted on from below by the elevation of the posts G and strip E.

Q represents the piece of plug-tobacco to which the tin tags T are to be attached, and R a strip of paper or other suitable material which is to be secured on the piece of tobacco with the tin tags T.

The tin tags may be round, square, or in any other desired shape, the apertures *f* in the piece E being correspondingly shaped. Each tag T' is provided with two or more upturned prongs or jaws, *t*.

The operation is as follows: The tin tags are passed into the recesses formed by the apertures *f* and rested on the tops of the posts G, (filling part of these apertures,) with the prongs extending upward. A strip, R, of gilt or other suitable paper, is then placed upon the perforated strip E, with what is to be the face side downward, and the upper side prepared with gum-arabic or other suitable adhesive material. A piece of plug-tobacco, Q, is placed on the strip E and rested against the back gages, N, and end gage, L. On operating the treadle the rise of the posts G forces the prongs *t* through the strip of paper R into the tobacco and presses firmly upward against the tobacco. The strip E being also raised, so soon as the upper ends of the posts G are flush therewith, also presses the whole of the paper R firmly against the tobacco. The rise of the tobacco in obedience to this force is arrested by the cross-bar A<sup>4</sup>, which forms a firm abutment therefor, and the tags and the paper are instantly and firmly united to the tobacco. On the operating of the treadle W the cross-bar G' rises a little distance without lifting anything but the posts G. This motion brings the top of the posts up even or flush with the top of the strip E. Then the cross-bar G' strikes

fairly against the bottom of the strip E and lifts all together.

Modifications may be made in many of the details. I can increase or diminish the number of the apertures *f* and of the posts G. The abutment-piece A<sup>4</sup> may for many uses be permanently attached in a given position and made to serve for all the thicknesses of tobacco by simply operating the treadle W to a greater or less extent. The upper surface of the strip E may be faced with rubber, felt, or analogous yielding material, if desired, in order to press the paper R more uniformly against irregularly-surfaced or "rough-and-ready" tobacco.

I claim as my invention—

1. In a tobacco-tagging machine, a series of equidistant posts, G, standing loosely within corresponding holes in a single continuous piece, serving as a platform, and serving by relative changes of position first to present a series of cavities by holding the ends of the posts lower than the surrounding piece, to receive the tags T' *t* upon the tops of the posts, and then to bring the working surfaces flush with each other to attach the tags to the tobacco, and to engage them firmly therewith, as herein specified.

2. In a tobacco tagging and labeling machine, the platform A' A<sup>2</sup>, independently-movable strip E, inclosed loosely therein, stops A<sup>5</sup>, and posts G, standing in perforations in the strip, combined and arranged as shown, with provisions for moving one relatively to the other, so that the posts, strip, and platform will all stand at different levels to receive the tags and paper, and afterward be all brought to the same level and into firm contact with the face of a tobacco-plug, and unite therewith the tags T' *t* and paper R, all substantially as specified.

3. In a tobacco-tagging machine, a series of equidistant posts rigid with and arranged vertically upon a bar, G', which is forced to reciprocate in guides by means of pitman and pedal-lever connections, combined with a platform having a series of holes, in which the posts operate loosely, in such a manner that the upstroke brings the upper ends of the posts flush with the upper face of said platform, and the receding stroke affords recesses, as and for the purposes set forth.

In testimony whereof I have hereunto set my hand, at New York city, New York, this 8th day of August, 1881, in the presence of two subscribing witnesses.

EDWIN R. HEARN.

Witnesses:

CHARLES C. STETSON,  
WILLIAM C. DEY.