

(No Model.)

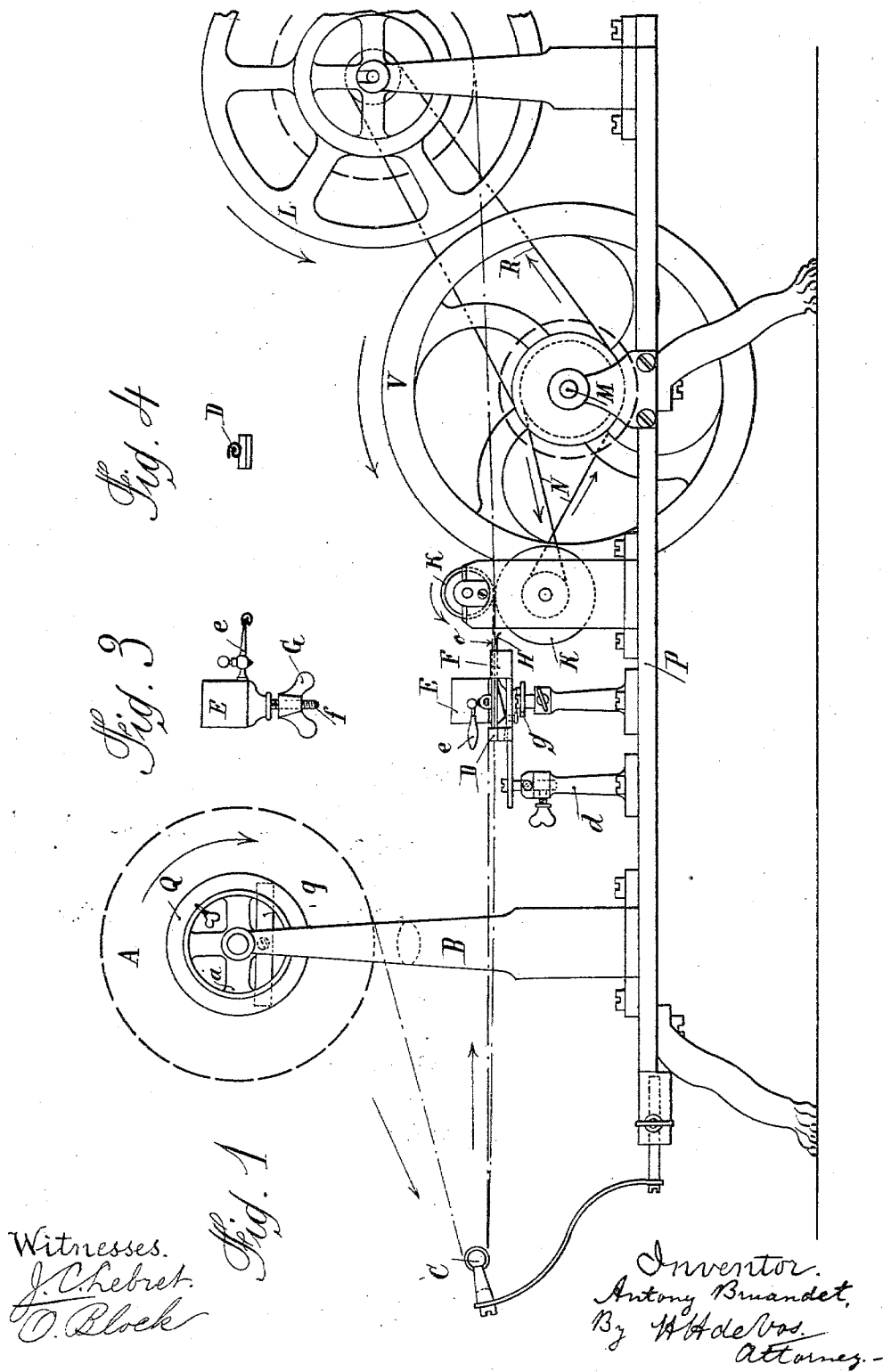
2 Sheets—Sheet 1.

A. BRUANDET.

MACHINE FOR MAKING CIGARETTE TUBES.

No. 566,559.

Patented Aug. 25, 1896.



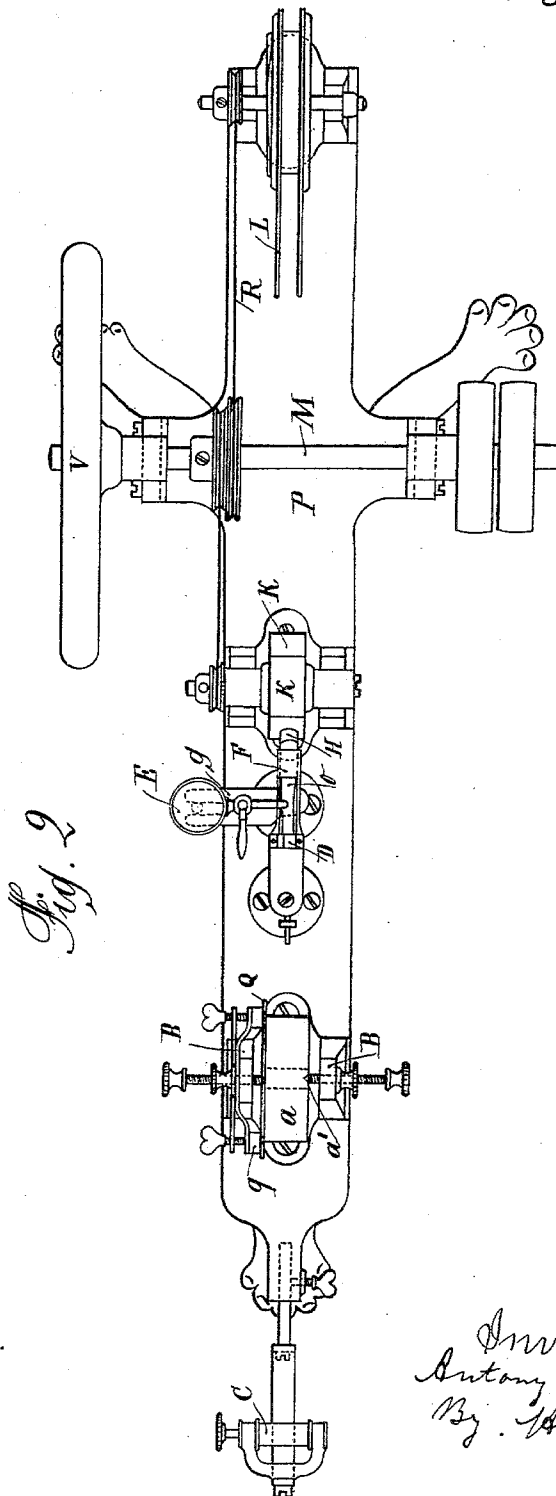
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Witnesses.
J. C. Hebert.
O. Block

Inventor.
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UNITED STATES PATENT OFFICE.

ANTONY BRUANDET, OF PARIS, FRANCE.

MACHINE FOR MAKING CIGARETTE-TUBES.

SPECIFICATION forming part of Letters Patent No. 566,559, dated August 25, 1896.

Application filed August 2, 1895. Serial No. 558,033. (No model.)

To all whom it may concern:

Be it known that I, ANTONY BRUANDET, a citizen of the French Republic, residing at Paris, France, have invented certain new and useful Improvements in Machines for Making Cigarette-Tubes, of which the following is a specification.

My invention relates to improvements in machines for making cigarette-tubes.

10 In cigarette-tube-making machines yielding the tube cut into pieces of the desired length the cutting is effected by scissors or knives coöperating with the devices forming the tube. This method of operation naturally limits the production of the machine, because an interruption in the operation of the parts which form the tube becomes necessary so as to provide for the operation of the scissors. However small this interruption may be, it becomes a factor to be considered when multiplied a thousand times. The hitherto-known machines of this character can hardly produce from eighty thousand to one hundred thousand tubes per day, even if there be no interruption for the cutting, for the operation of the machine is slow and consequently the yield small. In order to obtain a larger production, I have arranged to effect the two principal operations (formation of the tube and cutting) by two separate machines, the one machine making the tube of an indefinite length and the other machine opening and cutting the tube. My present application refers to the tube-making machine, and the machine for cutting forms the subject-matter of a separate application, Serial No. 554,637, filed July 1, 1895.

My new machine works without any interruption and may be operated by hand or by power, and can produce in one day a length of tube corresponding to at least five hundred thousand cigarette-tubes. The machines which cut the tube are, however, limited in their capacity by the indispensable interruptions, and five or six of them would be necessary in one plant to finish the work yielded by one tube-making machine.

50 In order to obtain an indefinite length of tube, I flatten the tube after the pasting, and I wind it upon a spool in the same manner as the cigarette-paper, so that, in fact, I trans-

form an ordinary spool of paper into a spool of pasted tube.

Referring to the drawings which accompany the specification to aid the description, Figure 1 is a side elevation, and Fig. 2 a plan view, of the machine. Fig. 3 is a detail of the paster detached from the other parts of the machine. Fig. 4 is a detail of the guide-scroll for forming the paper strip into a tube with lapping edges.

Referring to the annexed drawings, the paper-spool A is mounted on a forked standard B. The paper passing over the guide C is conveyed into a scroll D, which folds it into the shape of an oval tube and brings the two edges together, which slightly overlap each other. The paper tube thus produced now meets the paster E, the mouthpiece of which deposits a slight strip of paste on the upper edge of the tube. The tube then passes under a bridge F, where it is slightly flattened between the spring H and the upper part of said bridge F. It is then still more flattened by two rubber rollers K and formed into a flat strip. Said rollers K K also act as carrying and flattening rollers. The flattened tube is then passed upon a spool L, upon which it is wound.

The motion of the whole machine, when the operation is once started, is obtained from the shaft M, which is rotated by hand or by power. The motion is transmitted to the rollers K by means of the belt N and to the spool L by the belt R. A fly-wheel V regulates and facilitates the operation. All parts are mounted upon a frame P. The scroll D (separately shown in Fig. 4,) is supported by a standard d and extends to a plate o, which serves as a guide to the paper until it reaches the bridge F. The paster E is composed of a receptacle provided at its base with a horizontal cock e of the form shown in Fig. 3. At the outer end the outlet-pipe is provided with a very small, nearly capillary hole for the passage of the paste. By means of a threaded spindle f and a nut G the paster E can be fixed at any desired point of the slide g, and this arrangement enables me to touch a wider or narrower strip along the edge with paste. The paper-spool A is fixed to a hub a by means of set-screws, as shown,

and said spool A is provided with a side plate Q, upon which pressure may be exerted by a brake g, the friction being regulated by thumb-screws, as shown, which enables me to regulate the tension of the paper so as to obtain the most regular operation.

Now, having described my improvements, I claim as my invention—

1. The combination in a machine for making cigarette-tubes of a spool for the paper, a spool for winding the finished product and drawing along the paper, means for driving the last-named spool, a guide-scroll for forming the paper strip into a tube, a paster for feeding paste on the paper strip after it has passed the guide-scroll, and a bridge F and spring for partially flattening the tube, substantially as described.

2. The combination in a machine for making cigarette-tubes of a spool for the paper, a spool for winding the finished product and drawing the paper, means for driving the last-named spool, a guide-scroll for forming the paper strip into a tube, a paster for pasting the edges of the tube after it has passed the scroll, a bridge F and spring for partially flattening the tube, and rolls for completing the flattening of the tube before it is wound on the last-named rolls, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand this 15th day of May, 1895.

ANTONY BRUANDET.

Witnesses:

VICTOR MATRAY,
CLYDE SHROPSHIRE.