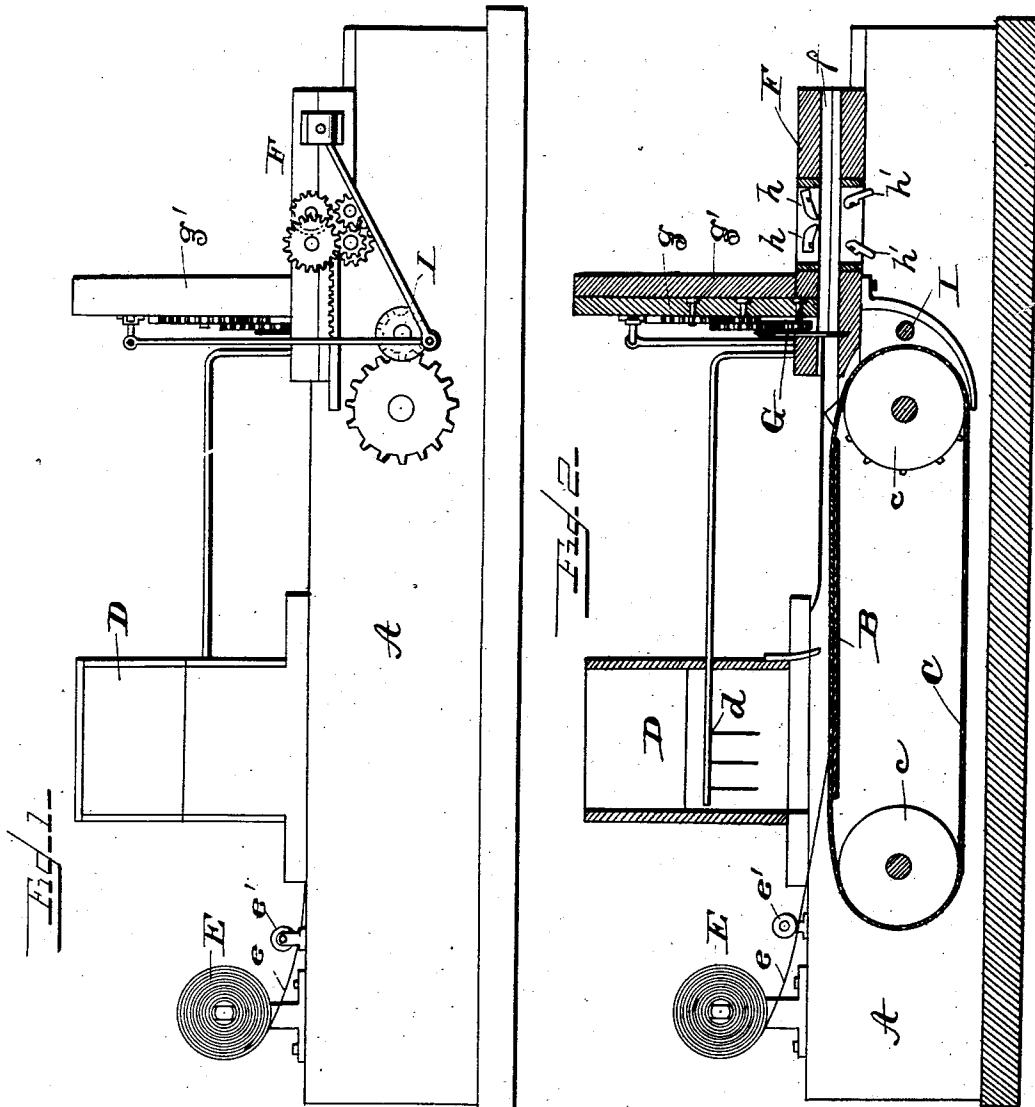


(No Model.)

W. A. HUDSON.
PROCESS OF MAKING CIGARETTES.

No. 587,826.

Patented Aug. 10, 1897.



WITNESSES—

G. W. Pauckenschmitt
J. D. Kingsbury.

INVENTOR—

William Arch Hudson
By Whitaker & Brewster
Attys.

UNITED STATES PATENT OFFICE.

WILLIAM ARCH HUDSON, OF WASHINGTON, DISTRICT OF COLUMBIA.

PROCESS OF MAKING CIGARETTES.

SPECIFICATION forming part of Letters Patent No. 587,826, dated August 10, 1897.

Application filed April 30, 1896. Renewed December 22, 1896. Serial No. 616,685. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM ARCH HUDSON, a citizen of the United States, residing at Washington, in the District of Columbia, have
5 invented certain new and useful Improvements in the Process of Making Cigarettes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the
10 art to which it appertains to make and use the same.

My invention consists in the novel features of construction and combination of parts hereinafter described, reference being had to the
15 accompanying drawings, which illustrate one form of apparatus which I have contemplated using in carrying out my process, and said process is fully disclosed in the following description and claims.

20 Referring to the said drawings, Figure 1 represents a side elevation of a machine by means of which my process can be carried into effect. Fig. 2 represents a longitudinal vertical sectional view of the same.

25 In carrying out my process I continuously fold a continuous paper wrapper about a tobacco filler, forming a continuous cigarette or stem, which is then severed into individual or single cigarettes, the ends of the paper
30 wrapper of which are crimped or tucked, forming when completed what is known in the trade as "tucked" cigarettes.

In the drawings, A represents the frame of the machine heretofore referred to, in which
35 is mounted a stationary cigarette-forming tube B, constructed and arranged to hold the wrapper around the filler as the wrapper is drawn through the machine.

C represents the tobacco carrying and forming belt, carried upon suitable rollers *c c*, one of which is a driving-roller; a portion of the belt passing longitudinally through the tube
40 B, as is usual in cigarette-machines.

D represents a tobacco-hopper located
45 above the rear portion of the belt C and provided with a stirrer *d*, and E represents a roll of paper of the required width for a cigarette-wrapper, supported revolvably at the rear end of the machine. The paper *e* is led from the
50 roll E beneath a guide-roll *e'* and laid upon the belt C beneath the tobacco-hopper and is

fed through the machine by frictional contact with the belt.

Adjacent to the forward end of the tube B is a longitudinally-reciprocating carriage F, 55 having a passage *f* therethrough exactly in line with the tube B, so that the continuous stem passes from the tube through the said passage in the carriage. On the rear end of the carriage adjacent to the tube B is a sever- 60 ing device consisting in this instance of a vertically-movable rotating knife or cutter-disk. This knife G is mounted on a vertical slide *g* and is provided with a train of gears, one of which engages a stationary rack se- 65 cured to the knife-supporting frame *g*, so that by raising and lowering the slide *g* and the knife the knife will be rotated.

Forward of the knife the carriage F is provided with a recess above and a recess below 70 the passage *f* and communicating therewith. In these recesses are arranged the upper tucking-fingers *h h* and the lower tucking-fingers *h' h'*, each of which is mounted upon a trans- 75 verse shaft, the shafts of each pair of tucking-fingers being preferably geared together for joint movement. Motion may be imparted to the tucker-shafts and their respective fingers in any desired way. The reciprocation of the carriage is effected in this instance by 80 means of a pitman connection from a shaft I, which is driven by the driving-shaft by means of gearing, as shown, and in a similar manner the vertical reciprocation of the cutter-slide *g* is effected. 85

The apparatus herein described forms no part of my present invention, as it is shown, described, and claimed in my application for Letters Patent, Serial No. 616,947, filed De- 90 cember 24, 1896, and it is therefore not described with more particularity herein.

The operation of the apparatus in carrying out my process is as follows: The hopper is filled with tobacco, the paper is placed in en- 95 gagement with the belt C beneath the hopper, and the machine is started. The stirrer *f* (which in this instance is connected with the reciprocating carriage) insures the feed of tobacco without clogging. The tobacco is de- 100 livered in a narrow stream upon the paper on the belt, and in passing with the belt through the tube B the paper is wrapped or folded

around the tobacco in the usual manner to form a continuous stem. As no paste is used ordinarily the edges of the paper wrapper will overlap one another more than is usual in pasted cigarettes. The cutter will be lowered across the path of the continuous stem at intervals, so as to sever portions of the desired length for individual cigarettes before tucking, and the mechanism is so timed that the cutter is operated while the carriage is moving with the stem and at the same speed, thereby securing a straight even cut. The carriage is moved forward a distance equal to half the length of a cigarette before tucking, and as it moves backward the same distance and moves at the same speed as the continuously-moving stem it will allow the right length for a cigarette to pass through it before it begins its next forward movement. As the carriage moves rearwardly the oncoming stem pushes the severed cigarette ahead through the passage in the carriage until the line of division between the stem and the severed cigarette comes in a line midway between the tuckers of each pair. The tuckers will then be operated while the carriage is moved forward with the stem and cigarette and will tuck or crimp the adjacent ends of the stem and the severed cigarette. As the process is repeated each cigarette which is pushed out of the passage of the

carriage by the oncoming stem will have both ends crimped or tucked. It is not necessary in carrying out my invention to have the tucking devices tuck the adjacent ends of two severed portions of the stem, as I may prefer to tuck simultaneously the two opposite ends of each severed cigarette, as shown and described in my application for Letters Patent, Serial No. 616,684, filed December 22, 1896.

What I claim, and desire to secure by Letters Patent, is—

1. The herein-described process of making cigarettes which consists in wrapping a continuous wrapper around a continuous tobacco filler forming a continuous stem, then forming separate cigarettes from said stem with the paper crimped at each end of the cigarette, substantially as described.

2. The herein-described process of making cigarettes, which consists in forming a continuous wrapped stem then severing and crimping to form cigarettes with the paper crimped at both ends, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM ARCH HUDSON.

Witnesses:

L. P. WHITAKER,
J. D. KINGSBERRY.