

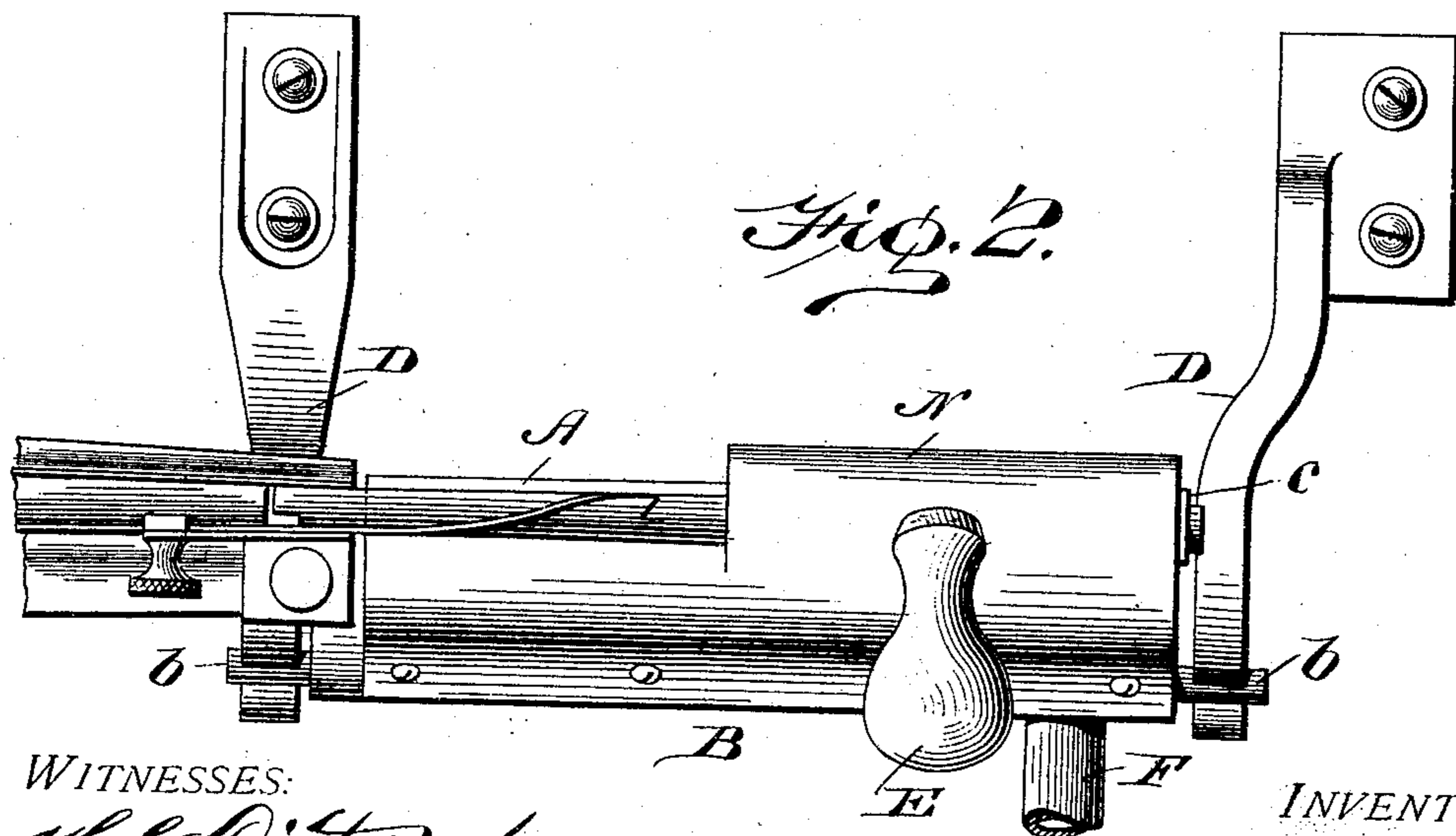
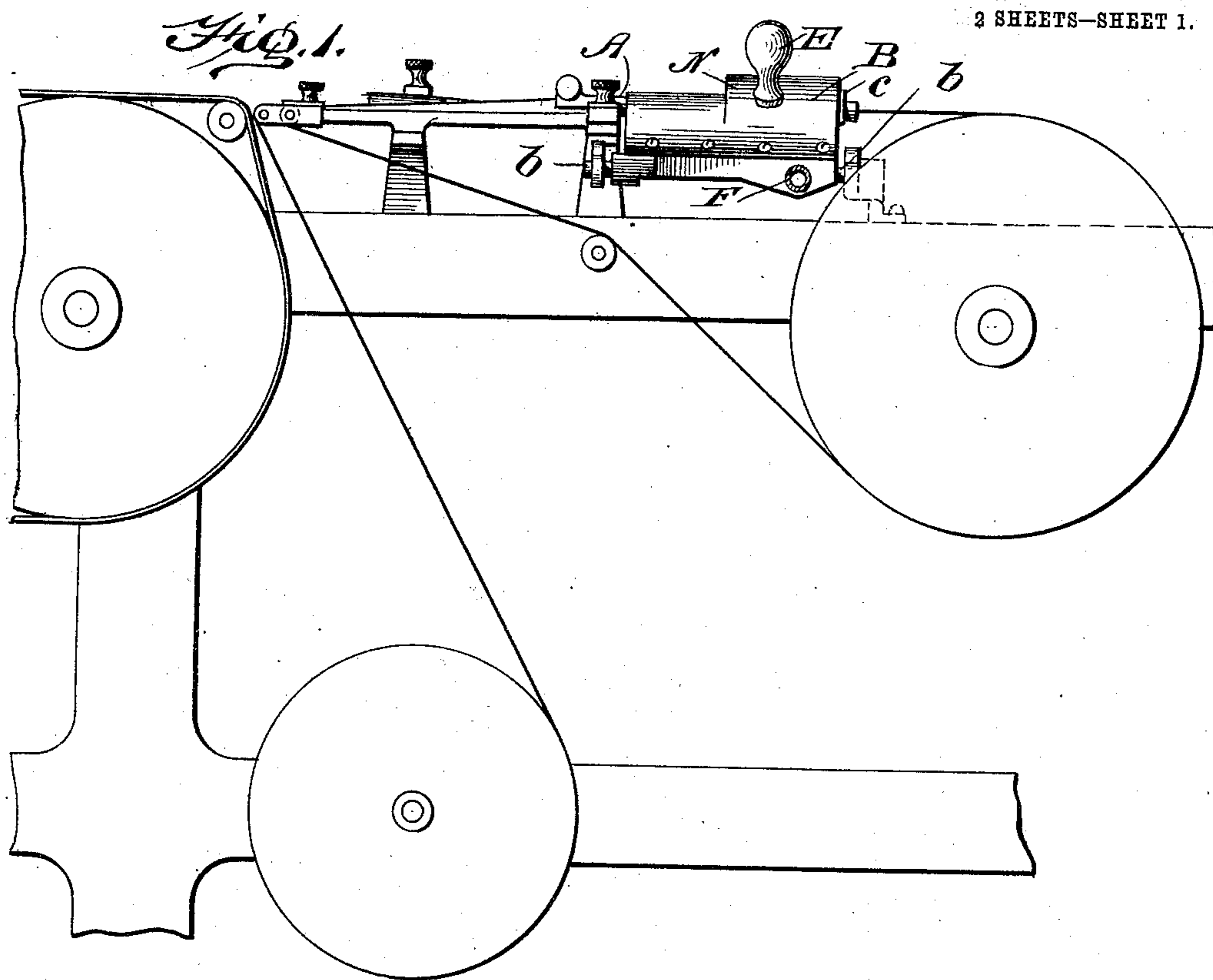
No. 842,534.

PATENTED JAN. 29, 1907.

N. DU BRUL.
DRIER FOR CIGARETTE MACHINES.

APPLICATION FILED APR. 5, 1905.

2 SHEETS—SHEET 1.



WITNESSES:

H. G. Dieterich
J. M. Olynkoop

INVENTOR

Napoleon DuBrul
BY *Knight & Co.*
Attorneys

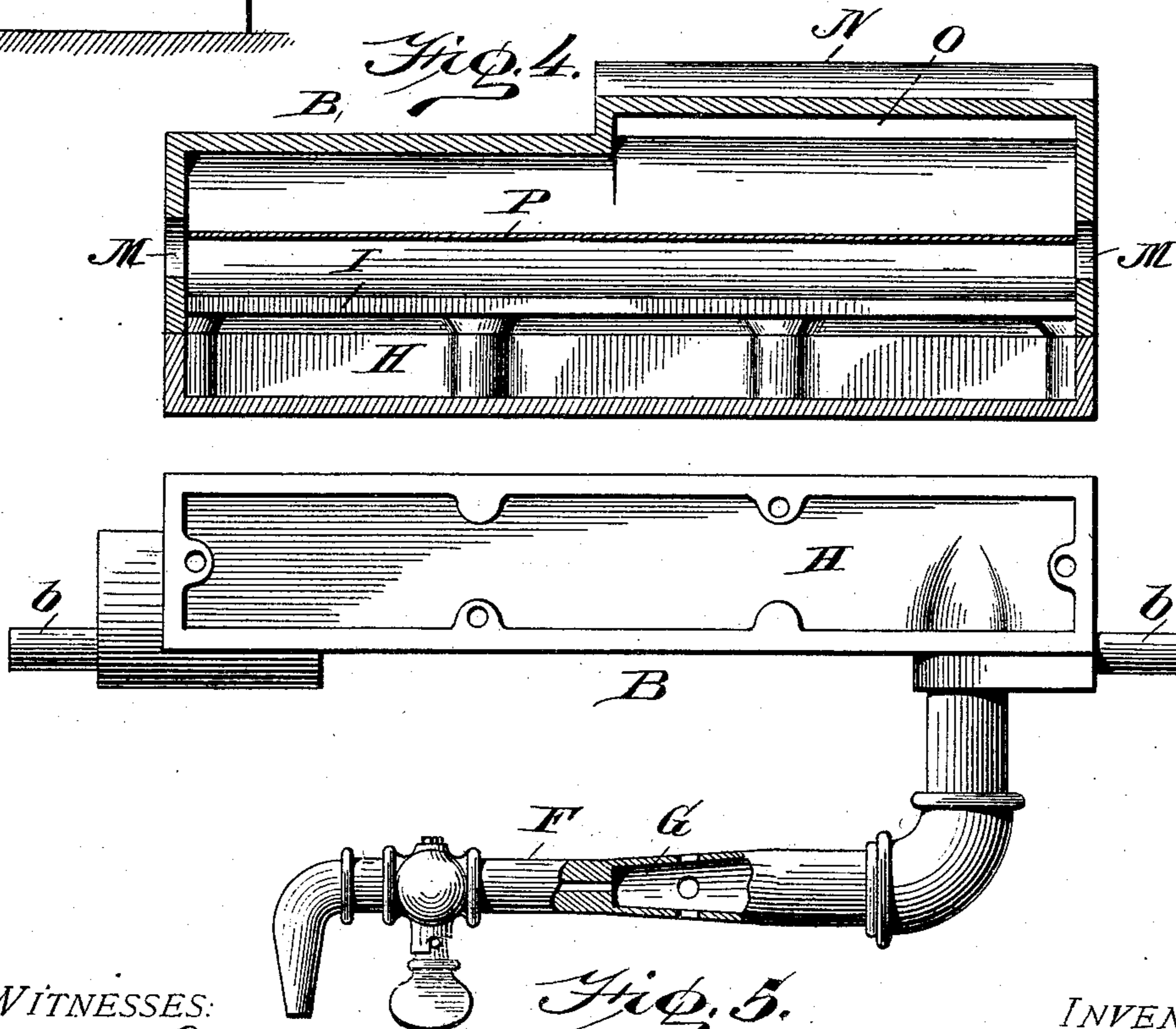
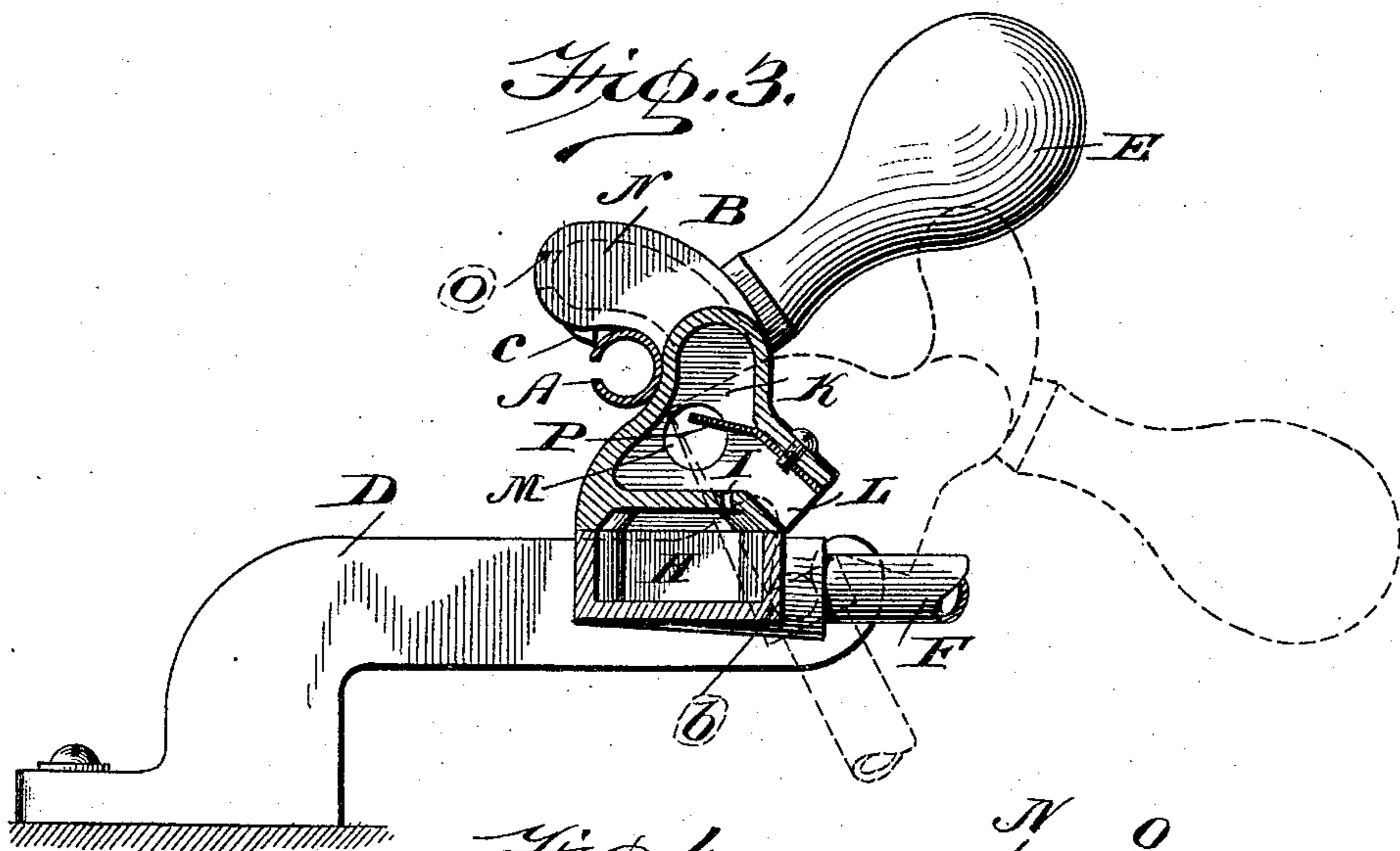
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J. G. Dieterich
J. M. Olynker

Fig. 5.

INVENTOR
Napoleon Du Brul
BY *Knight Bros*
Attorneys

UNITED STATES PATENT OFFICE.

NAPOLEON DU BRUL, OF CINCINNATI, OHIO.

DRIER FOR CIGARETTE-MACHINES.

No. 842,534.

Specification of Letters Patent.

Patented Jan. 29, 1907.

Application filed April 5, 1905. Serial No. 253,993.

To all whom it may concern:

Be it known that I, NAPOLEON DU BRUL, a citizen of the United States, residing in Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Driers for Cigarette-Machines, of which the following is a specification.

Sometimes when cigarettes are made with great rapidity the seam is not thoroughly dry when the rod emerges from the folding-tube, and the seam opens under the internal pressure of the filler; also, when the paste extends outside the seam and is not thoroughly dry the paste will pick up fragments of tobacco or dust and will cause the severed cigarettes to adhere. Moreover, when the machine is operated in an atmosphere below a certain temperature and the folding-tube is cold it is difficult to secure proper adhesion in the pasted joint. For these reasons it has been proposed to embody driers of various forms in cigarette-machines. These driers have heretofore been arranged as permanent accessories to the machine and have in some cases consisted in a heating and ironing tube in addition to the ordinary folding-tube. In other cases the heating means is permanently embodied in the folding-tube. The former of these two plans is objectionable, because of the additional length of passage for the cigarette-rod, and both are objectionable, because the heating action cannot be immediately arrested when the machine is stopped, but remains in contact with the cigarette-rod and endless tape to the injury of both.

The present invention has for its object to provide an economical and effective drier of simple construction that may be readily applied to and made to act through the ordinary folding-tube of a cigarette-machine to dry the pasted seam of the cigarette, which may be swung out of effective position and leave the thin folding-tube to cool rapidly during temporary stoppage of the machine or entirely removed when not required.

In the accompanying drawings, Figures 1 and 2 are a side and a plan view of my new heater in use. Figs. 3, 4, and 5 are respectively a vertical transverse section, a horizontal section, and a bottom plan view of the heater.

A represents a common form of folding-tube by which the paper wrapper is made to

surround the filler in a continuous cigarette-machine and by which the edges of the paper wrapper (one of which is previously supplied with paste) are made to overlap and adhere.

B represents the heater forming the subject-matter of my present invention. It is supported on trunnions *b*, upon which it may be swung to and from the tube A, with which it conforms and with which it is held in engagement by a catch *c*, carried by the upper overhanging portion N.

D represents supporting-brackets for the heater, which may be of any suitable form required by the particular machine to which the heater is to be applied, and the bearings for the trunnions *b* are open, so that the heater B may be lifted out and removed when its use is not required. When the machine is temporarily stopped and it is desired not to cool the heater down or to injure the cigarette rod or tape, the heater is grasped by the handle E and swung backward to the position shown in dotted lines in Fig. 3.

The heater may be heated in any suitable manner. I prefer to use a gas-pipe F, discharging into a mixer G, from which the blue-flame mixture is delivered into the base-chamber H, whence it escapes to a longitudinal series of ports I into the peculiarly-formed burner-chamber K, where more air is supplied through the intakes L and M. The burning gas mixture plays through the chamber K into the upper chamber N, and the products of combustion escape through the outlet O. A baffle-plate P in the chamber K further assists in mixing the air and forces the burning gases against the wall which it is desired to heat.

I do not limit myself to the particular construction of the interior of the heater shown, as this may obviously be varied according to the fuel employed. Gas is usually obtainable where these machines are in operation, and for that reason I have illustrated an effective construction of gas-heater.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In combination with a continuous cigarette-machine, having a folding-tube, means movable on the machine to and from the tube for heating said folding-tube to dry the seam of the cigarette-rod passing there-through.

2. In combination with the folding-tube of

a continuous cigarette-machine, a heater applied to the exterior of said folding-tube and movable on the machine into and out of heating relation with the tube for the purpose set forth.

3. In combination with the folding-tube of a continuous cigarette-machine or other tube through which the cigarette-rod passes, a heater movable on the machine to and from heating relation to said tube, for the purpose set forth.

4. In combination with a tube through which the cigarette-rod passes, a trunnioned heater movable upon its trunnions to and from a position in which it is adapted to heat said tube.

5. In combination with the tube through which the cigarette-rod passes, a trunnioned heater having one wall made to conform to said tube and movable to and from the same.

6. In combination with the tube through which the cigarette-rod passes, a heater mounted on trunnions by which it is movable to and from the tube, and having a catch releasably holding it in heating relation to the tube.

7. In combination with a continuous cigarette-machine, supporting-brackets, and a heater for drying the pasted seam of the cigarette-rod, having trunnions upon which it is movable to and from drying position, and having said trunnions removably mounted in bearings in the supporting-brackets, whereby the heater may be wholly removed from the machine.

8. A drier for cigarette-machines, comprising a hollow body adapted to lie parallel with and conform to the folding-tube of the cigarette-machine, and having a base-chamber into which fuel is discharged, provided with an upwardly-discharging burner-opening, a combustion-chamber into which said burner-opening discharges, having suitable inlets for air to support combustion and an upper chamber for a part of the length of the drier overhanging the tube and through

which the products of combustion are discharged.

9. A drier for cigarette-machines comprising a hollow body adapted to conform to the folding-tube of a cigarette-machine and constructed with a base-chamber for fuel having an upwardly-discharging burner-opening, a combustion-chamber into which said burner-opening discharges, having inlets for air to support combustion, a baffle-plate extending transversely of said combustion-chamber to deflect the burning gases toward the wall which contacts with the folding-tube, and an extension to the combustion-chamber extending a part of the length of the drier and overhanging the folding-tube.

10. In combination with a continuous cigarette-machine, a heater comprising a lower chamber to which the fuel is admitted and an upper chamber in which the fuel is burned, the said heater being provided with trunnions and supporting-brackets whereby it is supported in position on the machine by its own weight only.

11. The combination with the folding-tube of a continuous cigarette-machine, of a heater trunnioned in the base portion thereof and having means for the introduction of fuel thereto, also in the base portion.

12. In combination with the folding-tube of a continuous cigarette-machine, a heater comprising a means for introducing fuel at or near the base thereof, trunnions at or near the bottom of said heater and brackets having open grooved ends wherein the trunnions of the heating means may be set in such manner as to be movable into and out of heating relation with the folding-tube or bodily removed from the machine.

The foregoing specification signed at Cincinnati, Ohio, this 24th day of March, 1905.

NAPOLEON DU BRUL.

In presence of—

F. BROERMAN,
EDWIN H. FISHER.