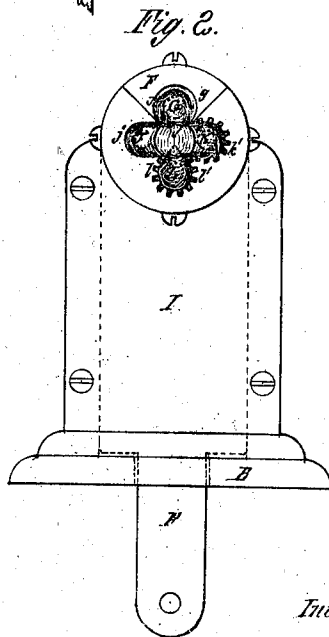
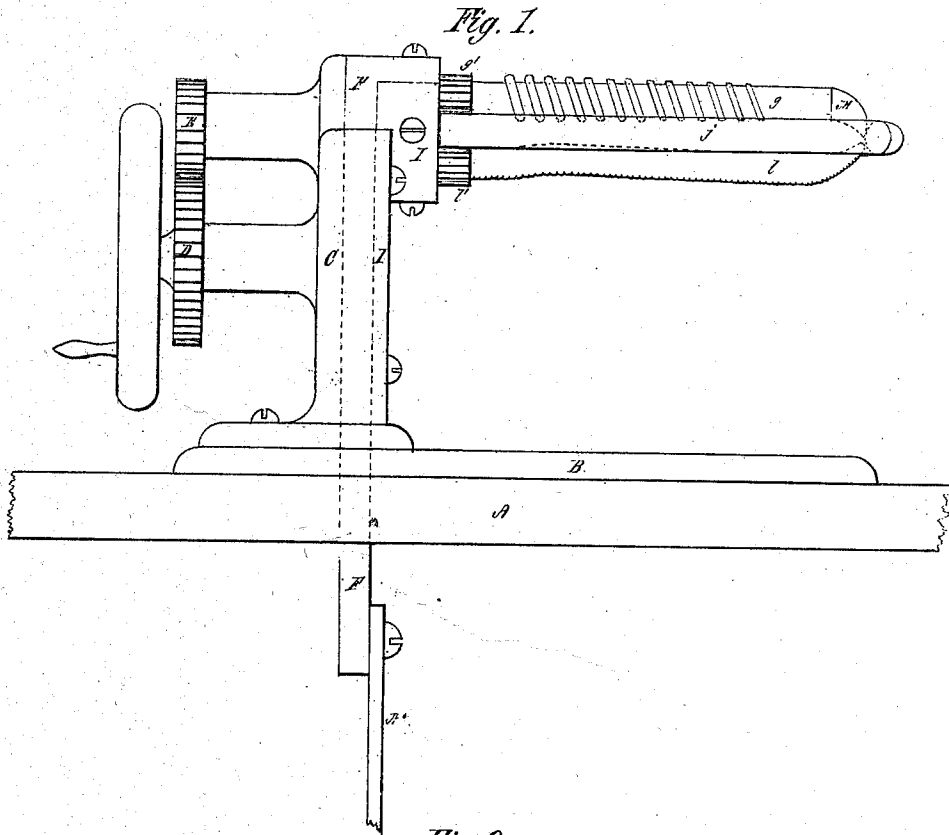


S. SCHOLFIELD.  
CIGAR MACHINE.

No. 106,214.

Patented Aug. 9, 1870.



Witnesses.

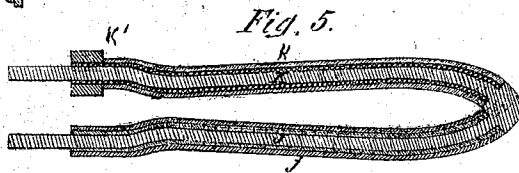
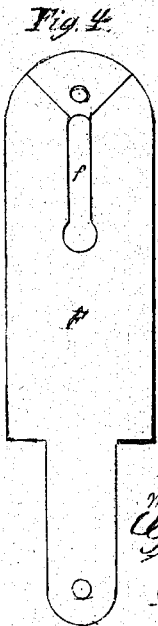
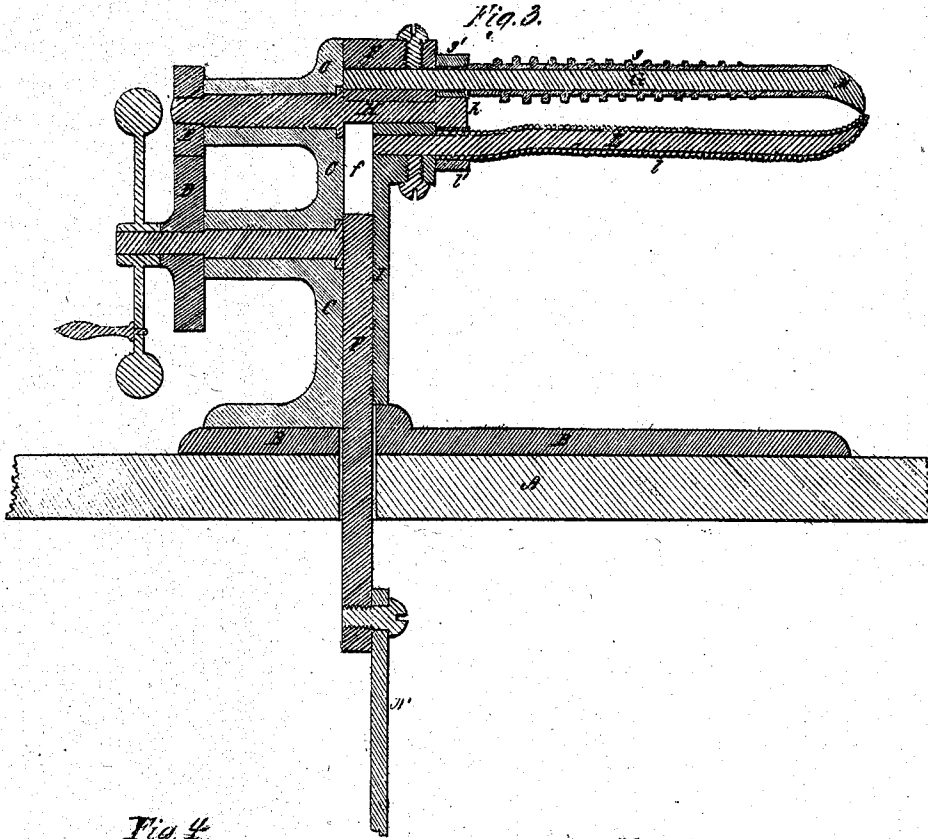
*George H. ...*  
*A. W. ...*

Inventor: *Socrates Scholfield.*

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Witnesses  
*George S. Rogers*  
*A. W. Abbott*

Inventor: *Scholfield*

# United States Patent Office.

SOCRATES SCHOLFIELD, OF PROVIDENCE, RHODE ISLAND, ASSIGNOR TO HIMSELF AND RICHARD A. BRIGHT, JR., OF SAME PLACE.

Letters Patent No. 106,214, dated August 9, 1870.

## IMPROVEMENT IN CIGAR-MACHINES.

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, SOCRATES SCHOLFIELD, of Providence, in the county of Providence and State of Rhode Island, have invented an Improvement in Cigar-Machines; and do hereby declare that the following is a full and exact description, reference being had to the accompanying drawing making a part of this specification.

The nature of my invention consists in a flexible tubular covering, revolving upon a stationary curved spindle or core, to be used in lieu of the ordinary grooved or hollowed rolls, for inclosing the cigar and roller on the binder or wrapper.

It also consists in an improved mode of constructing a cigar-machine roll, by means of an inner metallic tube, or its equivalent, arranged to support an outer non-metallic case or covering, revolving upon a stationary central spindle or core.

Also, in the employment of a spiral or screw-threaded surface upon any solid roll, or upon any device performing the function of a roll in a cigar-machine, for the purpose of forcing the inclosed bunch against the forward end of the machine, in order to produce a perfectly-filled head.

It also includes a new arrangement for operating with tubular rolls of any kind, in connection with a direct-acting slide for opening and closing the machine.

Figure 1 is a side view of the machine for rolling cigars.

Figure 2 is an end view of the same.

Figure 3 is a sectional side view.

Figure 4 is a view of the slide for opening and closing the machine.

Figure 5 is a sectional view of two spindles and their coverings, made of uniform diameter throughout.

A is the table or bench upon which the machine is to be placed.

B is the bed-piece, by means of which the machine is attached to the table.

C is an upright standard, furnishing proper bearings for the multiplying-gears D and E.

The face of the standard C is grooved to receive the slide F, to which may be attached a roll, *g*.

This slide is retained in place by the cap-piece I, to which is attached the spindles J, K, and L, each being provided with a revolving flexible covering, made of any suitable materials, and to which a driving-gear, as *k* and *l*, may be attached.

It will be observed that I have omitted the driving-gear on the flexible covering of the spindle J, over which the wrapper of the cigar is to be passed, thus allowing such flexible covering to be turned simply by the friction of the revolving cigar and the tension of the passing wrapper as it is being drawn into the ma-

chine, but a driving-gear may be used at this point, if desired.

The slide F is furnished with a slot, *f*, through which the shaft H passes, and may be made to carry either one or more spindles, as may be desirable in practice.

The roll *g* is held upon the spindle G by the curved former-head M, used in a measure to control the proper formation of the point of the cigar.

The roll G has a spiral or screw-thread at its base or inner part, which, by moving slightly faster than the smooth portion of the roll, owing to its increased diameter, tends to force the tobacco into the forward end of the machine when turned in the proper direction.

The gear *g* is attached to this roll and turns the same, being driven by the gear *h* upon the shaft H.

The two horizontal spindles, J and K, may be joined at their outer ends, thus completely traversing the cigar longitudinally, being covered with the flexible tubes *j* and *k*, made by a combination of metallic and non-metallic parts, and of uniform diameter throughout, the tube *k* being formed by means of a rubber coating or tube placed over a flexible wire spiral, and the tube *j* by placing a like rubber or other flexible covering over short metallic tubes, and thus connecting them, so that the whole may operate as a single flexible roll.

The spindle L is made tapering at its outer end, and extends directly to the fork of the two spindles J and K, and is covered with the tapering spiral *l*, made of suitable wire, to which the gear *l* is firmly attached.

The screw-threaded roll *g* may be easily made by soldering a coiled-wire spiral upon the surface of a suitable metallic tube.

Connection may be made by the bar N to a treadle, by means of which the slide F can be raised or lowered, as desired, in opening and closing the machine.

The roll *g* or coverings *k* and *l* may be driven by a belt or other frictional device, if desired, but the internal driving-gear *h* is supposed to constitute the most efficient and reliable arrangement for this purpose.

The operation of the machine will be as follows:

The cigar bunch, with the binder thereon, is to be previously prepared, being then inserted into the machine by raising the slide F, by means of a treadle.

The slide F being then brought down so that the gear *g* may engage with the central driving-gear *h*, motion will be imparted to the screw-threaded roll *g*, which, acting on the inclosed bunch, will force it into the head of the machine.

The wrapper is then to be passed over the roll *j* to the inclosed cigar, and wound upon the same spirally to the point, as usual, the former-head M producing a

rubbing action at the point, in opposition to the rolling action of the flexible coverings *k* and *l* and roll *g*.

The cigar being now finished, it may be removed by raising the slide *F* by means of the treadle, as before.

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

A flexible tubular covering, revolving upon a stationary curved spindle or core, arranged to operate in a cigar-machine, substantially as described.

Also, the combination of an inner metallic and an outer non-metallic tubular covering, revolving upon a central spindle or core, when used to inclose and roll a cigar, substantially as described.

Also, the employment or use of spiral or screw-thread-surfaced rolls, operating to force the inclosed

cigar into the head of the machine, substantially as described.

Also, a slide, *F*, in combination with any tubular covering used to perform the function of a roll in a cigar-machine, such machine being opened to insert or remove the cigar by a direct movement of the slide, substantially as described.

Also, a spindle, *G*, in combination with a former-head, *M*, and tubular roll *g*, or its equivalent, embracing the cigar longitudinally from tuck to point, substantially as described.

SOCRATES SCHOLFIELD.

Witnesses:

D. B. POTTER,

J. O. SALISBURY.