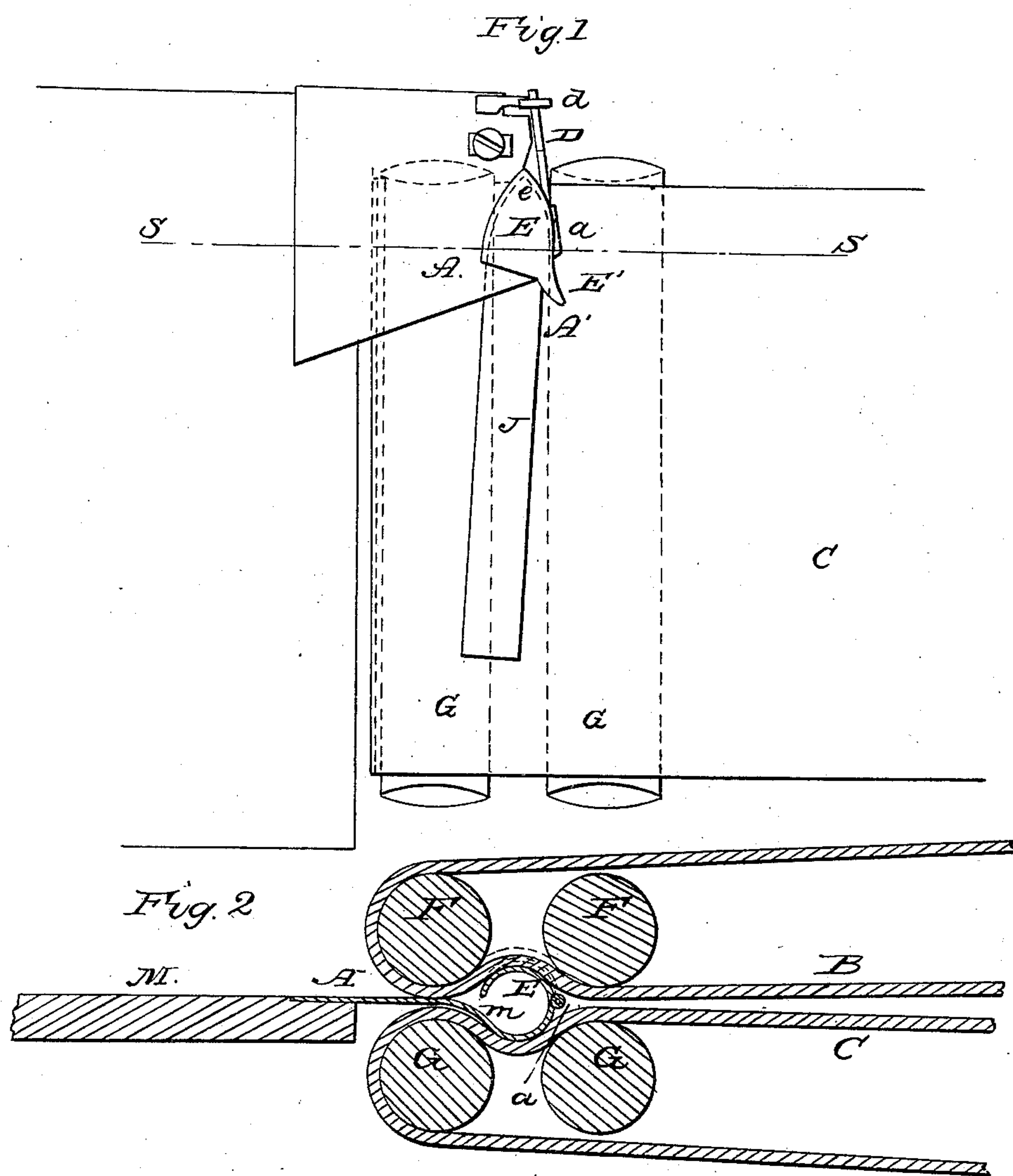


T. THORP.  
Cigar Heading Socket.

No. 27,484.

Patented March 13, 1860.



Witnesses  
John Hooper  
Gus Barker

Inventor  
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# UNITED STATES PATENT OFFICE.

THOMAS THORP, OF NEW YORK, N. Y.

## CIGAR-HEADING SOCKET.

Specification forming part of Letters Patent No. 27,484, dated March 13, 1860.

*To all whom it may concern:*

Be it known that I, THOMAS THORP, of the city of New York, in the county and State of New York, have invented a certain new and useful Improvement in Machines for Making Cigars, which invention I designate as a "Cigar-Heading Socket," and whereby I am enabled to head or finish properly the pointed end of every cigar, whether the material therein be greater or smaller; and I do hereby declare that the following is a full and exact description of the construction and operation of the same, reference being had to the accompanying drawings, and to the letters of reference designated thereon, in which—

Figure 1 is a plan view of the socket complete in its place in the machine, with an outline of a part of the adjoining mechanism; and Fig. 2 is a side view of the same, or, rather, a vertical section, on the line S S in Fig. 1. The red lines in Fig. 2 show the position of the parts when the elastic quality of the device is put in play by the introduction of a large quantity of material.

Similar letters of reference denote like parts in all the drawings.

My invention applies to all that class of cigar-machines in which the tobacco or other material for the cigar is rolled between two belts, or between two portions of the same belt.

The nature of my invention consists in making such socket in one, two, or more parts, so connected and arranged relatively to the belts and other parts of the machine that the socket can readily expand and contract, to adapt itself to the quantity of material presented at that extremity of the cigar, and give a proper finish and form to each cigar.

It also consists, in connection with the above, in hinging the parts of the socket together so that the surfaces are always in contact at one side, and so that the tendency of the rotation of the cigar is to cause the socket to compress the material without any liability of the parts to become twisted or out of line with each other, and without any possibility of injurious vibration.

It also consists in giving such a form or opening to the socket that the leaf or wrapper can enter freely at one side and be folded tightly upon the other materials of the cigar, while that part of the socket which forms the ex-

treme point of the cigar is always closed, or nearly so.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation by the aid of the drawings.

A is a plate of metal, secured to a fixed portion of the machine, and extending between the belts or the two parts of the belt B and C. At that point where the head of the cigar is to lie it is bent, as shown in Fig. 2, so as to leave on its upper surface a conoidal cavity, or, rather, a portion of such a cavity suitable to receive and give form to the end of the cigar. On its extreme edge is a hinge, *a*, to which is connected a slender rod, D, and spring *d*.

To the hinge *a* is strongly secured a cap, E, of a form corresponding to the cavity in A, as represented. The action of the hinge *a* allows the cap E to rise into the position shown by the red line in Fig. 2; but the tendency of the rod D and spring *d* is to close or impel downward this cap, so that it does not rise very high except under some considerable force, even when the parts are relieved from the pressure of the upper belt by the lifting of the same. When the upper belt, B, is down to the position represented in Fig. 2, it presses upon the cap E with considerable force.

The portion of the cap E which gives shape to the extreme point of the cigar is designated by *e*, and this portion of the cap is lower than the other portions, and consequently E cannot close down tightly on the side opposite the hinge, but will remain a little open on that side at all times, as represented in Fig. 2.

The operation of my device is as follows: The rollers F F and G G are so operated that the cigar, which is shown in outline at J, tends to traverse endwise and enter the socket. This end is obtained by causing the two belts B and C, or the two parts B and C of the same belt, to traverse across the cigar not in paths exactly opposite to each other, but at an angle, or in paths a little inclined toward the head of the cigar. This urges the cigar into the socket by a principle familiar to mechanics. As the cigar material properly enfolded enters the socket, it is molded into the proper form by the pressure thereon of the upper and lower sides, A and E, of the socket. If the material



be arranged in such form as to compose a slender head, the cigar enters with ease and presses against the interior of the socket at the smaller end, and assumes the proper finish without elevating E; but if, as is frequently the case in practice, the form of the material is thicker or blunter, the pressure is greater near the edge or mouth of the socket, and the cover E is compelled to rise in order to allow the cigar to be properly finished. This it does in opposition to the spring and to the tension of the belt, which causes E to press upon the material with considerable force, so as to properly and smoothly finish each cigar, whether the material be arranged in a very slender or very thick form. If the material be small at that end the point will be small, and if the material be in excess the point will be correspondingly thickened. With a rigid socket, or one less yielding than is proper, the heads of the cigars are much compressed when the material chances to be thick, and too little finished when the material chances to be too thin. There is also a liability of the material to jam or bind in the socket, and thus to utterly defeat the end hoped to be attained. As the belts or parts of the belt B C traverse rapidly, there is a possibility that the parts of the socket A E may, if not properly connected, vibrate so as to fail of effecting the object. This I prevent by joining and strongly hinging the parts together at *a*, as represented. The location of this hinge and the friction of the tobacco against the inner surface of E tends to induce E to be drawn down with considerable force in addition to the effect of the rod D and spring *d* and of the belt B. This fact is readily comprehended on trying the finger within the socket and turning it around in the right direction. It will be seen from this description that the side of my socket opposite the hinge *a* is always open for the reception of the wrapper, as designated by *m* in Fig. 2. If the hinge *a* be dispensed with al-

together by making the socket A E in one piece, and the metal of the socket be adapted to spring at or near that point to a sufficient extent, the effect of my invention will be attained; but I prefer to employ the hinge *a* and spring *d* as herein represented. I produce curved prolongations from the hinged side of both A and E, which are denoted by A' and E' in Fig. 1. These are for the purpose of softening and obliterating any shoulder which might be formed in the cigar by the edge of the socket. The edges of both A and E are also inclined relatively to the line of travel of the belts for the same reason.

In the figures the rollers are shown but imperfectly, it being intended merely to indicate the relation of my heading-socket thereto. In Fig. 1 the lower rollers, G, and belt C alone are indicated, the upper rollers, F, and belt B being supposed to be lifted off ready for the introduction of the material for a cigar.

Having now fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The cigar-heading socket made in one, two, or more parts so constructed and arranged as to be attached to any cigar-making machine, or in such a manner that the socket can operate to give a proper finish to various sizes of cigar-heads, substantially as herein set forth.

2. In connection therewith, the hinging of the parts A and E at the point *a*, for the purpose herein set forth.

3. The said cigar-heading socket, with the opening *m*, made in the form and so as to operate as herein described, whether with or without the hinge *a*.

In testimony whereof I have hereunto set my name.

THOMAS THORP.

In presence of—

JOHN W. HOOPE,  
GEO. BARKER.