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3,384,094

MANUFACTURE OF MOUTHPIECE CIGARETTES

Filed March 11, 1965

Fig. 1.

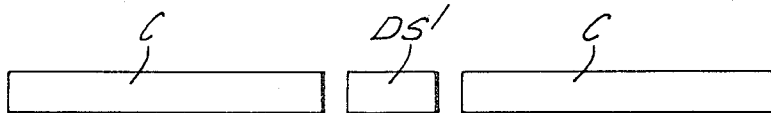


Fig. 2.

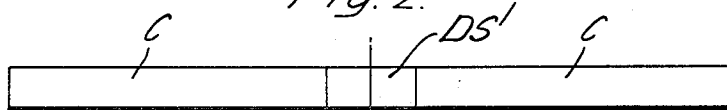


Fig. 3.

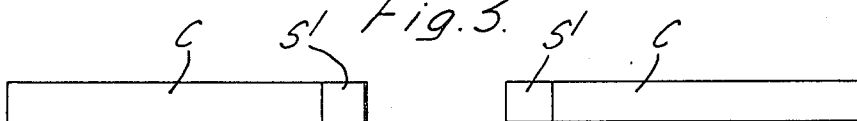


Fig. 4.

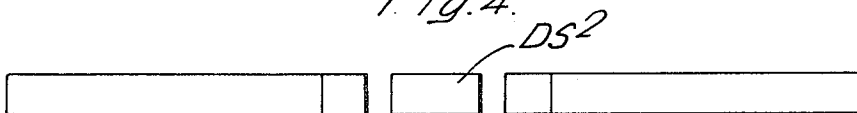


Fig. 5.

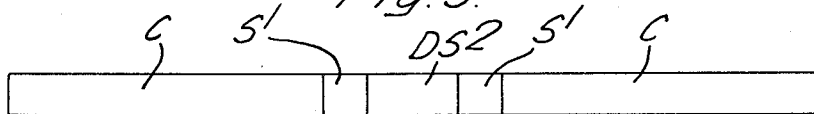


Fig. 6.

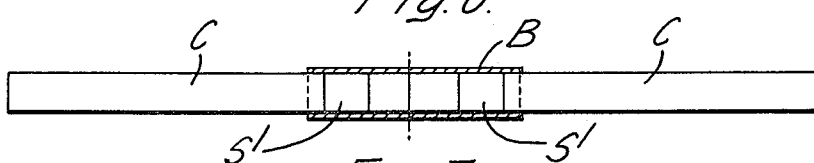
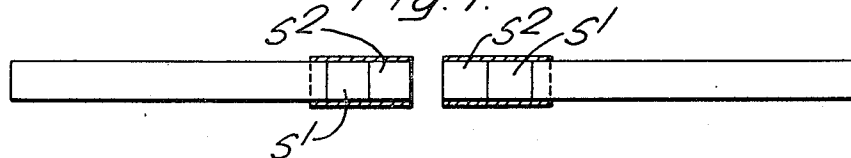


Fig. 7.



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MANUFACTURE OF MOUTHPIECE CIGARETTES
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3 Claims. (Cl. 131—94)

ABSTRACT OF THE DISCLOSURE

Mouthpiece cigarettes each having two mouthpiece stubs are made by inserting a double-length stub between two cigarette lengths, cutting the double-length stub in half, separating the two two halves endwise, inserting a further double-length stub between the two halves, closing up all the elements endwise, enclosing the stubs and the adjacent ends of the cigarette lengths in a wrapper, and then cutting through the central stub.

This invention concerns improvements in or relating to the manufacture of mouthpiece cigarettes.

Mouthpiece cigarettes are known which consist of a length of cigarette rod abutted against and joined to a mouthpiece portion by an encircling uniting band. The mouthpiece portion often consists of filtering material, but may take other forms—for example it may be a length of hollow tube. Any mouthpiece portion suitable for joining to a length of cigarette rod will for convenience be referred to herein as a stub, and any suitable length of cigarette rod to which a stub may be joined will be referred to as a cigarette length.

Mouthpiece cigarettes are sometimes provided with composite mouthpieces each containing two or more stubs which usually differ from each other in their construction—for example the outermost stub, which is visible, may be chosen mainly for its appearance, while the inner stub or stubs may be of a kind selected for their filtering or other characteristics. Various methods have been proposed for producing such cigarettes, or for producing suitable lengths of mouthpiece material which incorporate a number of stubs.

According to the present invention there is provided a method of making mouthpiece cigarettes which comprises the steps of forming a group consisting of two cigarette lengths with a double-length stub between and in line with them, cutting the double-length stub to produce two single-length stubs, separating the said single-length stubs endwise while maintaining them in line with the cigarette lengths, inserting a further double-length stub between the two single-length stubs, bringing all the stubs and cigarette lengths into endwise abutment, enclosing the stubs in an encircling uniting band which partly overlaps the cigarette lengths and which is the sole means by which the stubs are joined to the cigarette lengths, and cutting through the said further double-length stub to produce two mouthpiece cigarettes each consisting of a cigarette length and two stubs end to end and joined by a single uniting band. The first said double-length stub may be inserted between the said two cigarette lengths while the latter are moving axially, the remaining operations being performed while the cigarette length and stubs are moving laterally.

The invention further provides a mouthpiece cigarette consisting of a cigarette length joined to two end to end stubs by means of a single encircling uniting band which is also the sole means of joining the two stubs to each other.

A method in accordance with the invention will now

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be described with reference to the accompanying drawing, in which the successive figures illustrate successive stages in the production of a mouthpiece cigarette in accordance with the invention.

As shown in FIGURE 1, two cigarette lengths C are arranged spaced endwise apart and a double-length stub DS¹ is placed between them and in line with them. This group may be produced in any convenient way, for example the cigarette lengths may be fed axially as they issue from the cut-off of a cigarette-making machine, and may be accelerated to space them endwise to accommodate a double-length stub which is fed into the gap after every other cigarette length, all while the cigarette lengths are moving endwise.

In FIGURE 2 the group is shown with the parts abutted endwise. Although they are shown closely abutted, this is not essential, since they could if desired be left spaced somewhat apart at this stage. The group is preferably now moved sideways, i.e. transversely of its length, for the remaining operations, although it will be understood that if desired all the operations could be performed while the parts are moving axially. The next operation is to sever the double-length stub DS¹ transversely, at the position shown by the chain-dotted line in FIGURE 2, to form two single length stubs. These are indicated by the reference S¹ in FIGURE 3, which illustrates the next stage in which the single-length stubs S¹ are separated endwise from each other to provide a sufficient space for a further double-length stub to be inserted. In FIGURE 3 both the stubs S¹ and the two cigarette length are shown to have been moved endwise, but it will be understood that if the parts were not previously abutted, it might be necessary only to move the stubs S¹ apart. Also the separation could be effected by moving only one stub S¹ and its associated cigarette length C.

A further double-length stub DS² is then inserted into the gap as shown in FIGURE 4.

Following this, all the parts are closed up endwise into close abutment, as shown in FIGURE 5.

The next step is to enclose all the stubs in an encircling, adhesive uniting band B which partly overlaps the end portions of the two cigarette lengths. This results in a unitary assemblage in which the three separate stubs S¹, S¹ and DS² are joined not only to the cigarette lengths but also to each other by a single wrapping.

The final step is to subdivide the assemblage into two mouthpiece cigarettes by cutting through the band B and through the double-length stub DS², as indicated by the chain-dotted line in FIGURE 6.

Each of the resulting mouthpiece cigarettes, shown in FIGURE 7, has a mouthpiece consisting of two individual, single-length stubs S¹ and S² which are joined to each other and also to the cigarette length solely by a single uniting band.

It will be seen that the stubs and cigarette lengths should as far as is practicable all have the same diameter.

The nature of the stub DS² may be determined by its appearance, while the stub DS¹ may be chosen purely for its filtering or other characteristics.

It will be understood that if desired, the stub DS² could be severed, and the resulting stubs S² separated endwise, and a still further double length stub inserted between them, before the uniting band is applied. This would produce cigarettes having mouthpieces consisting each of three stubs.

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

1. A method of making mouthpiece cigarettes which comprises in sequence the steps of forming a group consisting of two cigarette length with a double-length stub between and in line with them feeding the said group

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transversely of its length, cutting the double-length stub, while it is between and in line with the two cigarette lengths, to produce two single-length stubs, separating the said single-length stubs endwise while maintaining them in line with the cigarette lengths, inserting a further double-length stub between the two single-length stubs and in line therewith and with the cigarette lengths, bringing all the stubs and cigarette lengths into endwise abutment, enclosing the stubs in an encircling uniting band which partly overlaps the cigarette length and which is the sole means by which the stubs are joined to the cigarette lengths, and cutting through the said further double-length stub to produce two mouthpiece cigarettes each consisting of a cigarette length and two stubs end to end joined by a single uniting band.

2. A method according to claim 1 wherein the first said double-length stub is inserted between the said two cigarette lengths while the latter are moving axially, and the remaining operations are performed while the cigarette lengths and stubs are moving transversely of their lengths.

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3. A method as claimed in claim 1, wherein the first said double-length stub is brought into endwise abutment with the two cigarette lengths before it is cut, and the two single-length stubs produced by cutting it are maintained in endwise abutment with their adjacent cigarette lengths during and after endwise separation from each other.

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