I. SEMENOFF.

PRODUCTION OF SHELLS EMPLOYED IN THE MANUFACTURE OF CIGARETTES.

APPLICATION FILED JUNE 5, 1908.

900,432. Patented Oct. 6, 1908.

Fig. 1.

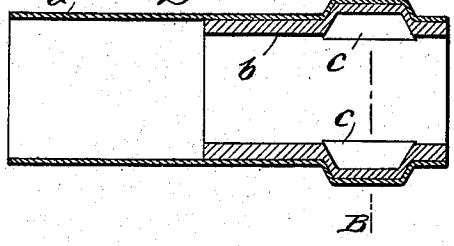


Fig. 2.

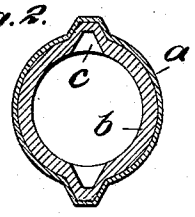


Fig. 3.

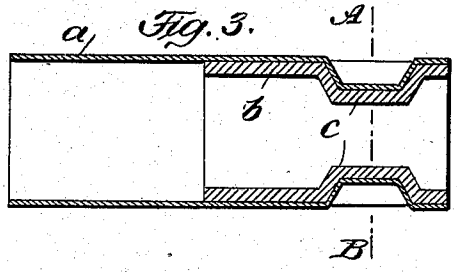


Fig. 4.

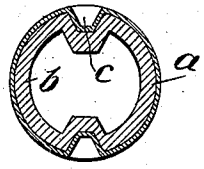


Fig. 5.

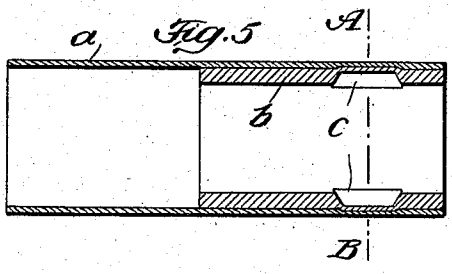


Fig. 6.

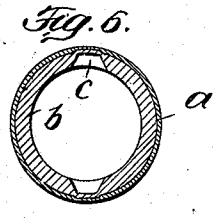


Fig. 7.

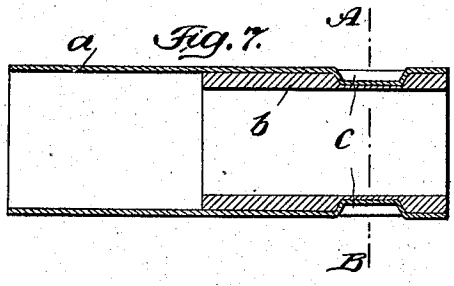


Fig. 8.

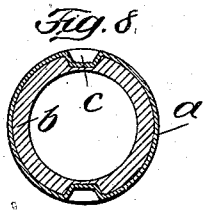


Fig. 9.

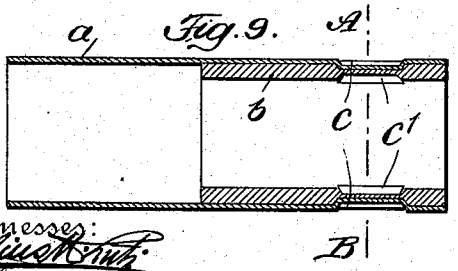
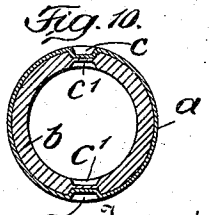


Fig. 10.



Witnesses:
Julius Kruttschnitt
Louise Franck.

Inventor
Iwan Semenoff
By his Attorney
Otto Munn

THE NORRIS PETERS CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

IWAN SEMENOFF, OF ST. PETERSBURG, RUSSIA.

PRODUCTION OF SHELLS EMPLOYED IN THE MANUFACTURE OF CIGARETTES.

No. 900,432. Specification of Letters Patent. Patented Oct. 6, 1908.

Application filed June 5, 1908. Serial No. 436,889.

To all whom it may concern:

Be it known that I, IWAN SEMENOFF, a subject of the Emperor of Russia, residing at St. Petersburg, Russia, have invented certain new and useful Improvements in the Production of Shells Employed in the Manufacture of Cigarettes, of which the following is a specification.

The present invention has reference to the production of shells employed in the manufacture of cigarettes, and refers particularly to that class of shells which are provided with mouthpieces that project some distance beyond the cigarette body, such cigarettes being commonly termed Russian cigarettes.

It is the general practice at the present time to employ an adhesive substance for the purpose of uniting the mouthpiece to the shell, but this method of effecting the union of the parts has been found to entail numerous disadvantages, both in the manufacture of the articles, as well as in the completed articles themselves. Inasmuch as the shells and mouthpieces are turned out in quantities by machines the use of adhesive has a tendency to soil the several parts of the machine with which it comes in contact and in time will clog the operative parts thereof and moreover as the adhesive also comes in contact with the shells at such parts where no adhesive is required, many shells are rendered unusable for this reason. Again having reference to the completed shell and mouthpiece joined by adhesive, when such united shells and mouthpieces are permitted to remain unfilled with tobacco for any length of time, the adhesive dries or decomposes, losing its adhesive property, and when filling is attempted a large percentage of the mouthpieces becomes disengaged from their shells and thus are rendered defective, if indeed not entirely useless. This disadvantageous feature is especially prominent in shells into which the tobacco is introduced through the mouthpiece. These shells are sold in large quantities and are done up in bundles, each bundle containing the desired number of shells, say, for example, 200. The purchasers are generally smokers who make their own cigarettes, and the practice is to place a bundle of such shells on a table, mouthpiece up, spread the finely cut tobacco over the shells (the bottoms of which are closed) and then by suitable manipulation to work the tobacco by hand into the individual shells. If now any such mouthpiece is loose from its shell, slight pressure of the hand is sufficient to force the mouthpiece down into the shell (which is made of very thin paper) causing the shell to close over the mouthpiece and prevent the admission of tobacco, thus spoiling that particular shell, and in fact rendering the entire package or bundle of shells useless.

Owing to the transparency and very small quantity of paste employed for each shell it is virtually impossible to detect defects of the kind referred to except by actual use, and in this manner not only does the manufacturer frequently lose trade, but the cost of manufacture is also materially increased.

When adhesive is used in the manufacture of the cigarette shells and mouthpieces, three materials enter into the manufacture, namely, the cigarette paper, the stiff paper for the mouthpiece material and the paste. The paste being liquid or semi-liquid it is obvious that there is considerable difficulty in handling the same in a satisfactory manner, and the handling thereof entails the expenditure of considerable labor, time and cost. When however, no paste is employed the material which gives the most trouble in manufacture is not used. The only two materials which it is necessary to handle being the cigarette paper and the mouthpiece material, and by omitting the use of paste, the manufacture of the shells and mouthpieces proceeds more expeditiously, requiring less labor, less time and less cost.

Having in mind the foregoing objections to the present method of manufacture, one object of my invention is to provide a method of producing cigarette shells with attached mouthpieces in which the use of adhesive for effecting union of the two members is entirely dispensed with.

Another object is to so join the two members that their accidental relative displacement or separation will be prevented.

A further object is to provide a method of manufacture whereby an increased output and more perfect product will result than is possible under present manufacturing conditions.

Stated in general terms, the invention consists in applying pressure to, or radially distorting at one or more points the material of either the mouthpiece or of both the shell and mouthpiece in such manner as to form

an interlock, as it were, which prevents both relative movement and separation of the parts.

For the purpose of illustrating the invention I have appended the accompanying sheet of drawing wherein

Figures 1, 3, 5, 7 and 9 are longitudinal sectional views of shells and mouthpieces joined according to my invention, and Figs. 2, 4, 6, 8 and 10 are corresponding cross sectional views each being taken on the line A—B of the longitudinal sectional view to which it corresponds.

In carrying out my invention I employ a shell *a* which usually consists of thin light weight cigarette paper and insert into the same the mouthpiece *b*, which is shorter than the shell and closely fits against the same. The mouthpiece material is fairly stiff and may be made of any appropriate substance. When the shell and mouthpiece are thus contiguously placed depressions *c* or *c'* are made at one or more places in either the mouthpiece material or in both the mouthpiece and shell by means of suitably applied pressure thus forming internally or externally disposed projections by means of which the shell and mouthpiece are firmly united without the use of adhesive substance of any kind.

It will be understood that the invention is susceptible of embodiment in the most varied forms and that the forms shown in the drawing are intended to serve merely as illustrations. In Figs. 1 and 2 two externally disposed projections are shown, the material of both shell and mouthpiece being pressed outwardly. Figs. 3 and 4 are the reverse of the two preceding figures in that the projections extend inwardly. In Figs. 5 and 6 the material of the mouthpiece only has been pressed outwardly, the shell itself remaining smooth throughout its length, the union in this form of the invention being brought about by the pressure applied in any suitable manner at the points *c*, whereby the shell is so closely pressed against the mouthpiece that separation or displacement is prevented. In Figs. 7 and 8 pressure has been exerted upon the outer periphery of the shell and mouthpiece causing adhesion and depression of the shell and mouthpiece, the inner periphery of the latter remaining smooth throughout. Figs. 9 and 10 illustrate the appearance of an article of the kind where both external and internal pressure has been applied to produce the oppositely disposed depressions *c* and *c'* in both shell and mouthpiece material.

The invention may be practiced either by hand or by machinery, the latter method being preferable as greater pressure is attainable in this manner, and as the interlock, in certain forms of the invention is produced only by pressure of the shell against the mouthpiece or vice versa.

A very valuable feature in connection with my invention is the facility afforded by the depressions or projections for the reception of advertising features, inasmuch as it is possible and usual to place upon these projections or depressions suitable trade or factory marks, initials or ornamental features as desired by the dealers or consumers.

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

1. As a new article of manufacture, a combined shell and mouthpiece, having a distortion in either thereof, to form an interlock therebetween.

2. As a new article of manufacture, a combined shell and mouthpiece, the material thereof being distorted, whereby an interlock between the said shell and mouthpiece is formed.

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

IWAN SEMENOFF.

Witnesses:

H. A. LOVIAGUINE,

EDWARD WAUSETERDT.