

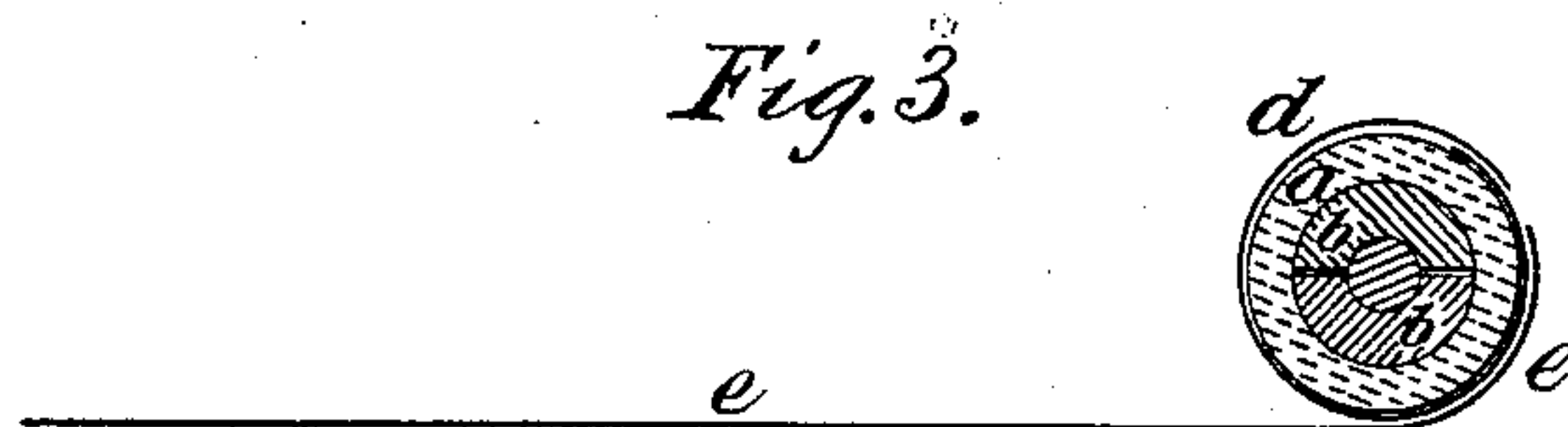
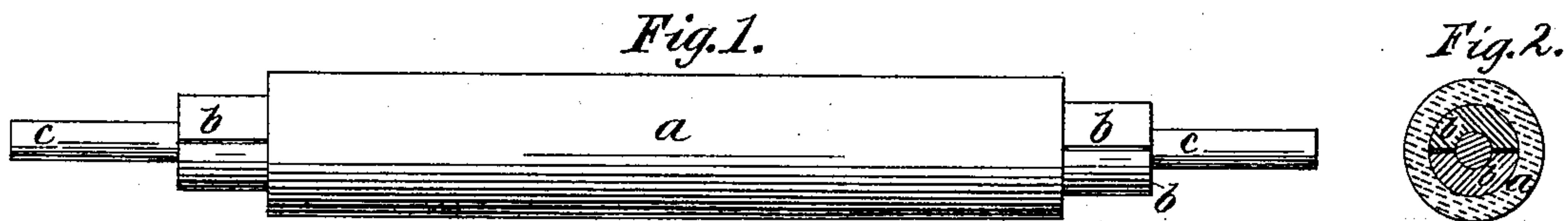
(No Model.)

H. F. RIEDEL.

PROCESS OF MANUFACTURING CIGARETTES WITH TOBACCO WRAPPERS.

No. 389,975.

Patented Sept. 25, 1888.



Witnesses:
Joseph W. Roe.
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UNITED STATES PATENT OFFICE.

HEINRICH FRANZ RIEDEL, OF DRESDEN, SAXONY, GERMANY.

PROCESS OF MANUFACTURING CIGARETTES WITH TOBACCO WRAPPERS.

SPECIFICATION forming part of Letters Patent No. 389,975, dated September 25, 1888.

Application filed October 28, 1887. Serial No. 253,647. (No model.)

To all whom it may concern:

Be it known that I, HEINRICH FRANZ RIEDEL, a subject of the Emperor of Germany, residing in the city of Dresden, in the Kingdom of Saxony, German Empire, have invented a new and useful Improvement in the Process of Manufacturing Cigarettes with Tobacco Wrappers, of which the following is a specification, reference being had to the accompanying
10 drawings.

It is understood that for manufacturing cigarette wrappers of tobacco only those parts of the tobacco-leaf are to be used which are free from coarse ribs. These parts, cut out to proper
15 size and shape and spread out and flattened, have applied to one edge gum or cement and are rolled up to form cylinders or tubes for the reception of the cigarette-tobacco. The formation or manufacture of such wrappers or
20 cylinders from tobacco-leaf must, however, be accomplished very carefully, in view of the fineness of the material, especially as the outer appearance should be smooth and even. I therefore use for the manufacture of such wrappers a contractible core-body or mandrel which
25 may be easily removed out of the wrapper after it has been formed into a tube thereon, such core having a soft elastic surface, into which the veins and uneven parts of the surface of
30 the leaf may indent themselves if external pressure is applied to the wrapper, thereby allowing the veins and unevenness of the leaf to protrude toward the inside of the wrapper and leave the exterior smooth. The piece of
35 tobacco-leaf to form the wrapper having been moistened and having had cement or gum applied to one of its edges, I roll or lap it around this soft-surfaced core-body to form a tube, and around the so-formed tube, while it is on said
40 core-body, I roll up tightly a temporary wrapper of strong and smooth, but not very thick, paper, which, being harder than the surface of the core-body, presses the veins or uneven part of the tobacco wrapper into the said sur-
45 face. I then dry the tobacco wrapper while in the temporary wrapper, and after the drying I produce the contraction of the core-body and withdraw it, leaving the tobacco wrapper within the temporary paper wrapper. I then
50 fill the tobacco wrapper with tobacco by in-

serting the latter through the end or ends, and after the filling I unroll and remove the temporary paper wrapper, leaving the cigar or cigarette complete.

In the accompanying drawings, which illus- 55
trate the apparatus for performing my invention, Figure 1 is a longitudinal view illustrating the construction of the contractible core-body which I prefer to use in carrying out my invention. Fig. 2 represents a transverse sec- 60
tion of the same. Fig. 3 is a transverse sectional view, representing the contractible core-body having a tobacco wrapper rolled around it and showing the temporary paper wrapper
as just commencing to be rolled around the to- 65
bacco for the purpose of enveloping it.

Similar letters of reference designate corresponding parts in all the figures.

The core-body represented has its external portion composed of a piece of soft vulcanized 70
india-rubber tubing, *a*, of an external diameter nearly equal to the diameter of the cigarette to be produced. Into this tube is inserted a tube of metal, *b*, split lengthwise. Into this split tube a smooth metal spindle or rod, *c*, is 75
inserted, which rod must be of such diameter as to slightly expand the split-metal tube and the india-rubber tube. The core-body having been thus expanded the piece of leaf-tobacco
to form the wrapper, having had gum or cem- 80
ent applied to one edge, is rolled or lapped around it and thus formed into a tube. The soft surface of the india-rubber tube presents a soft elastic bed for the tobacco-leaf, the veins and uneven parts of which are pressed into the 85
said surface, leaving its exterior smooth. In Fig. 3 the wrapper *d* is shown thus lapped around the core-body and formed into a tube. The tube having been thus formed, the core-
body, with the tube upon it, is rolled up with- 90
in the paper wrapper *e*. The tobacco wrapper thus enveloped in the temporary paper wrapper is left upon the core-body long enough for the tobacco wrapper and the gum or cement employed for securing its edges to be 95
come dry. The contraction of the core-body is then produced or allowed to take place by withdrawing the central spindle or rod, *c*, thus leaving the external soft india-rubber tube, *a*, free to contract, so that it will be loose within the 100

wrapper. The latter tube is then withdrawn, and the tobacco wrapper *d*, still enveloped within the temporary wrapper *e*, is filled with tobacco, after which the temporary wrapper or
5 envelope *e* is unrolled or removed, leaving the cigarette complete.

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

The improvement herein described in the
10 manufacture of cigarettes with tobacco wrappers, consisting in first wrapping the tobacco-leaf, of which the wrapper is to be formed, around a contractile body having a soft surface, and cementing its lapping edges to form
15 it into a tube, next enveloping the said tube and said body in a temporary wrapper of

harder material than the surface of said contractile body to press the inequalities of the tube into the soft face of the said body, next drying the tube while so enveloped, next producing the contraction of the body and withdrawing the same from the tube, next filling the tube with tobacco, and finally removing the temporary wrapper, substantially as herein set forth. 20

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses. 25

HEINRICH FRANZ RIEDEL.

Witnesses:

GEORG RICHTER,

WILHELM WIESENHÜTTER.