

A. WILLIS.  
MANUFACTURE OF CIGARETTES.

No. 191,501.

Patented May 29, 1877.

Fig. 1.



Fig. 2.

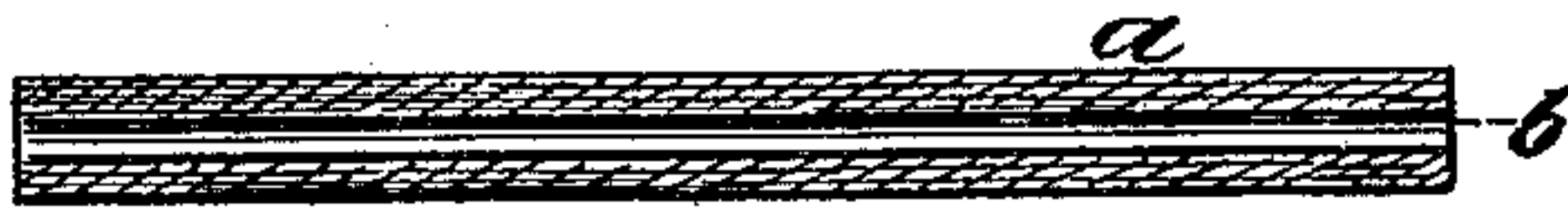


Fig. 3.

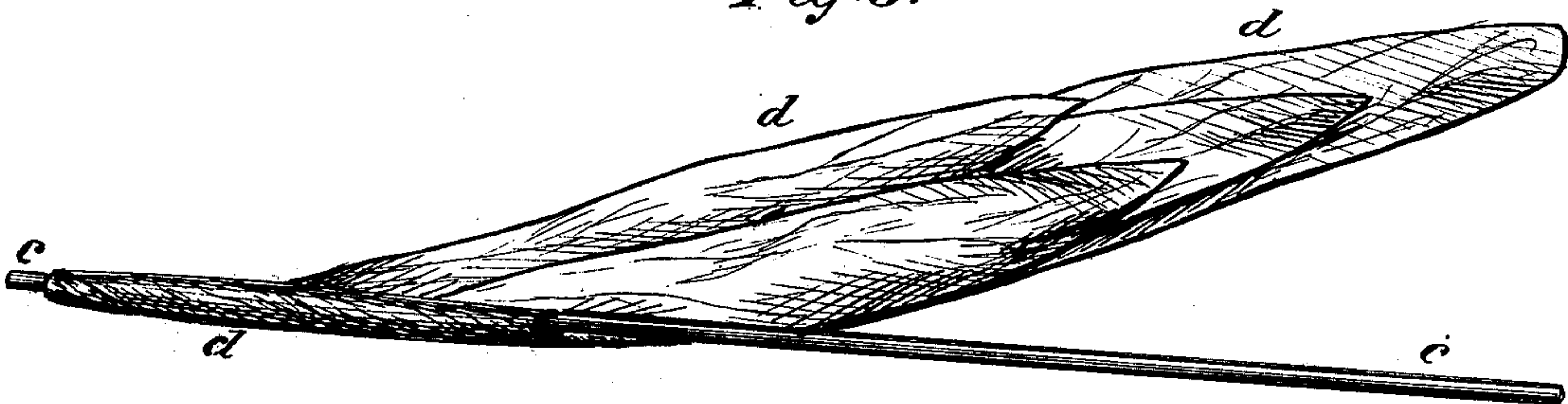


Fig. 4.

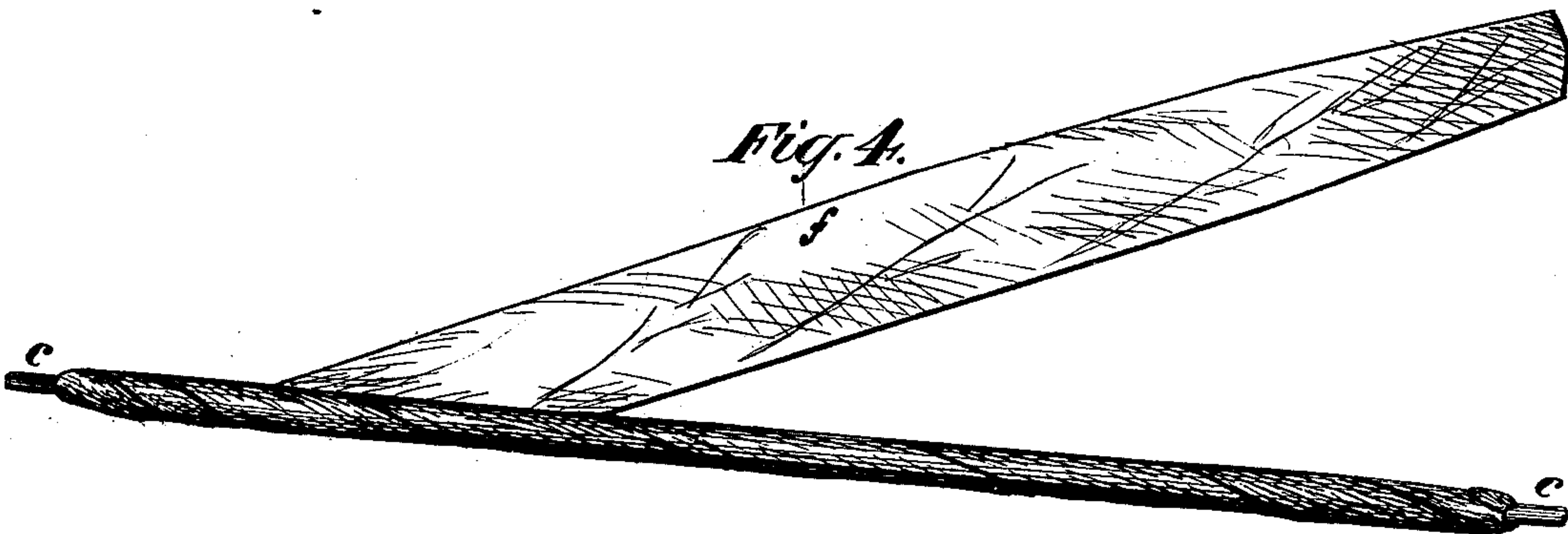


Fig. 5.



Witnesses.

John Becker  
Fred. Waynes

Inventor  
A. Willis  
by his Attorneys  
Brown & Allen.



# UNITED STATES PATENT OFFICE.

ASA WILLIS, OF BROOKLYN, NEW YORK.

## IMPROVEMENT IN THE MANUFACTURE OF CIGARETTES.

Specification forming part of Letters Patent No. **191,501**, dated May 29, 1877; application filed March 29, 1877.

*To all whom it may concern:*

Be it known that I, ASA WILLIS, of Brooklyn, in the county of Kings and State of New York, have invented an Improved Process of Manufacturing Cigars and Cigarettes; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, forming part of this specification.

The invention consists in a process of manufacturing cigars and cigarettes by rolling or winding tobacco upon a wire, which serves as a mandrel while rolling or winding, and by the use of which a roll or coil of considerable length, and of very uniform size and density, may be made in such manner that when said wire is withdrawn from the roll or coil, so formed, it leaves a smoke-passage for free draft, said roll or coil being then cut into proper lengths to form the cigars or cigarettes.

Figure 1, in the accompanying drawing, is a cross-section of a cigar or cigarette made in accordance with my improvement. Fig. 2 is a central longitudinal section of the same. Figs. 3, 4, and 5 illustrate the process of manufacture in different stages of progress.

My invention provides a means whereby cheap and inexperienced operatives may rapidly manufacture cigars or cigarettes of uniform size and density without the possibility of rolling or winding the tobacco so hard as to prevent free draft in smoking, as provision for free draft is made by a central longitudinal hole or smoke-passage through the entire length of the cigar or cigarette, which passage performs the same function as the hole in a pipe-stem when the said cigar or cigarette is smoked. This construction permits tobacco to be manufactured into cigars or cigarettes by winding said tobacco upon a wire, performing the function of a mandrel in lengths of—say, half a yard, more or less, and when the mandrel is withdrawn the roll so wound on said mandrel is cut into lengths suitable for cigars or cigarettes.

In Figs. 1 and 2, *a* represents the body of the cigar or cigarette, and *b* the central longitudinal smoke-passage through the same.

In making the cigars or cigarettes I take a small mandrel, preferably a solid wire, *c*, Figs. 3, 4, and 5, and by rolling the same un-

der the tips of the fingers upon a table or plane-surfaced bench, or in any other suitable way, wind the tobacco *d* on said wire, as shown in Fig. 3. I continue the winding, joining on additional tobacco, and gumming the outer edges of the leaves, and the ends joined on, if necessary, till the wire is covered as nearly to the ends with the wound tobacco as convenient. When a sufficient number of such rolls are made I draw out the wires *c* and cut the rolls into lengths, for cigarettes or cigars, which are thus rapidly and uniformly made, even by unskilled hands, and which smoke freely, the smoke as formed finding an uninterrupted passage through the hole *b*.

The cigarettes or cigars made as described require neither wrappers nor binders, but I may, if desired, make them with wrappers by similarly winding upon the tobacco roll, formed as first described, and while on the mandrel a wrapper, *f*, as shown in Figs. 4 and 5; or I may put on said wrappers after the mandrel is withdrawn from the original roll or coil, and the same is cut into lengths; but I prefer the method of putting on the wrappers first described.

The mandrel, affording resistance to the pressure of the hands from the commencement of the rolling, enables the operator to keep the roll of uniform size, which is difficult for unskilled hands to do with a soft and flexible tobacco-roll not having such a mandrel in its interior.

Subsequent packing partly closes the smoke-passage *b*, but not so much as to affect the free draft of smoke, which, although the passage be so far closed as not to be distinctly discernible, easily flows through said passage in smoking the cigarettes.

I claim—

The process of manufacturing cigars and cigarettes by spirally winding leaf-tobacco, or leaf and scrap together, upon a central wire or mandrel, subsequently withdrawing said wire, and cutting the roll so wound into lengths, substantially as and for the purpose set forth.

ASA WILLIS.

Witnesses:

BENJAMIN W. HOFFMAN,  
FRED HAYNES.