

# UNITED STATES PATENT OFFICE.

FERDINAND FUNKE, OF EVANSVILLE, INDIANA.

## TOBACCO-PAPER.

SPECIFICATION forming part of Letters Patent No. 246,117, dated August 23, 1881.

Application filed April 8, 1881. (No specimens.)

*To all whom it may concern:*

Be it known that I, FERDINAND FUNKE, a citizen of the United States, residing at Evansville, in the county of Vanderburg and State of Indiana, have invented certain new and useful Improvements in Paper Manufactured from Tobacco; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention has relation to the manufacture of paper containing a large percentage of the tobacco-plant, (*Nicotiana tabacum*,) so as to adapt it for use as wrappers for cigars or cigarettes with better results than the paper ordinarily used for such purpose.

In the manufacture of this paper I am enabled by my peculiar process to use the stems and other refuse which cannot ordinarily be used in the manufacture of cigars, smoking-tobacco, or cigarettes, and thereby produce a paper containing a large proportion of tobacco at a comparatively very small expense.

To prepare this paper I proceed as follows: I take, to prepare a batch of one thousand pounds, seven hundred pounds of good dry tobacco-stems and mix therewith two hundred and fifty pounds of sound dry straw and fifty pounds of new Manila fiber of the best quality. This is cut up fine and thoroughly mixed, after which it is placed in an ordinary boiling-tub, such as is used in all paper-mills, and a sufficient quantity of soft water is added to convert the mass into a pulpy state. I then add fifty pounds slaked lime and ten pounds soda-ash and boil the mass for twenty-four hours, preferably by steam to avoid burning, stirring the pulp frequently while boiling. The mass is then removed from the boiler and put on a pile to bleach, in the same manner as ordinary straw paper, for about a week, at the expiration of which it is put into a paper-pulp engine and carefully ground for four hours.

This completes the process of preparing the pulp, which is made into paper upon an ordinary cylinder paper-machine of the class usually employed in the manufacture of straw paper.

This paper contains about seventy per cent. of tobacco, the remaining thirty per cent. of fiber being necessary to produce the requisite coherency in the material, without which it would be too brittle. The chemicals used in its manufacture are in no wise injurious, and, if desired, the paper may be made up into plugs, like chewing-tobacco, or smoked as fillers in cigars or cigarettes, as well as being used as wrappers for these. It is far less injurious and much more agreeable to the taste than the tissue-paper ordinarily used in the manufacture of cigarettes, and burns much more freely and evenly, and with less oil as a product of combustion than rice-paper.

I am aware that tobacco has been used before in the manufacture of paper, either alone or in combination with Manila fiber to increase its toughness; but I have found that the addition of a large percentage of Manila causes the paper to "coal" by imperfect combustion. I overcome this difficulty by substituting straw for Manila, with the exception of a small percentage of the latter material, just enough to bind the mass and make it sufficiently tenacious in texture. Hence I do not claim a tobacco-paper made of tobacco and Manila, but a paper composed of the specified ingredients, in the specified proportions, to wit:

As an article of manufacture, paper composed of seventy per cent. tobacco-stems, twenty-five per cent. straw, and five per cent. Manila fiber, substantially as set forth.

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

FERDINAND FUNKE.

Witnesses:

J. E. WILLIAMSON,  
W. E. STINSON.