

UNITED STATES PATENT OFFICE.

P. M. CONSUEGRA AND RAMON ANTIGÜEDAD, OF NEW YORK, N. Y.

IMPROVEMENT IN THE MANUFACTURE OF TOBACCO PAPER.

Specification forming part of Letters Patent No. 86,368, dated February 2, 1869.

To all whom it may concern:

Be it known that we, P. M. CONSUEGRA and RAMON ANTIGÜEDAD, of the city and county of New York, in the State of New York, have invented certain new and useful Improvements in the Manufacture of Tobacco Paper; and we do hereby declare that the following is a full and exact description thereof.

The paper is intended mainly for use as envelopes for cigarettes; but it may be used for the bodies of cigarettes, for the wrappers or filling of cigars, cartridges for pipes, and as an envelope for woolen and fur clothing, to preserve from moth, and in any other situation.

A demand for paper made of pure tobacco has long been felt, and efforts have been made to produce such.

We have succeeded in producing paper of pure tobacco, and can retain the whole or any desired portion of the strength of the tobacco in the product, overcoming all the difficulties due to the peculiar adhesive character of such pulp.

We will proceed to describe what we believe to be the best mode of carrying out our invention, and will afterward designate the points which we believe to be new.

In a late experimental production of one thousand pounds of paper, we took Virginia tobacco, of fair quality, and boiled it six hours in a small quantity of water. We then took out the tobacco, with a portion, we judge about half, of the water, and adding some fresh water, sufficient to make a proper flowing pulp, treated it from midnight until two o'clock the next afternoon, in other words, fourteen hours continuously, in the ordinary beating or pulping engine of the paper-mill. We treated the stems and leaves mingled, believing the coarse fiber of the stems is useful in imparting valuable qualities to the product. We then flowed out the pulp thus made in the ordinary Foudrinier machine, but so adjusted as to produce a tolerably thick paper, about like the medium brown paper used for wrapping purposes.

In passing the pulp through the Foudrinier machine we laid sheets of previously-made common paper, or, better, similar paper, between the pulp and the several rollers, and thus avoided the difficulty which would other-

wise result from the adhesion of the peculiar material to the rollers. These sheets of paper do not permanently adhere to the soft pulp, but are easily separated therefrom after the sheet of pulp has passed the rollers. We found this proceeding more especially needed at the commencement of the operation.

We found, after the machine was fairly working, that the tenacity of the material was sufficient, ordinarily, to peel off the partially-formed paper from the rollers; but whenever any difficulty arose from sticking, the attendant immediately introduced fresh sheets of paper, kept in a dry condition at hand for the purpose. Thus, whenever inclined to stick to the rollers, the partially-formed paper was treated between the several rollers, not by contact with the rollers directly, but by contact with the sheets of paper which were interposed between the pulp and the rollers. Paper may thus be used in continuous sheets of great length, and the interposition be made practically continuous; but we have not found it necessary, and believe it best to simply introduce it in sheets, as circumstances show it to be required, omitting it for such part of the time as the pulp can be induced to work without sticking.

We believe that our method will, with proper care, insure a reproduction of the new and valuable product obtained with proper precautions at any time.

By avoiding the introduction of alkalies or any chemicals, we can omit the washing heretofore considered necessary, and preserve the original strength of the tobacco in the leaf itself; and in the water in which it is softened, we can, by using the whole or any desired quantity of the water from the tank or kettle in the pulping-engine, retain the whole or any desired portion of the strength of the tobacco in the final paper.

We can, by employing a longer time in the preparatory stage, soften the tobacco in cold or tepid water instead of boiling it; and we have tried the employment of steam as an agent with success, believing that we soften the material a little sooner with steam than with boiling water. It is essential, simply, to this stage of our process, that we soften it by the use of water or watery vapor without chemicals, and

thus avoid any necessity for changing waters and losing the strength of the tobacco.

Our paper may be calendered, and thereby smoothed or glazed like other paper. It may be sized and may receive any ordinary additions; but what we esteem especially valuable in the product is the preservation of such part as is desired of the strength of the tobacco, and preserving its purity by avoiding the addition of any obnoxious foreign substances, and preserving all the several elements in their original intimate relations without distillation or other change.

We do not claim separating the extractive matter, and again reinfusing it after the paper is finished, as it is well known that differ-

ent properties are imparted by such treatment, and the article thereby produced is inferior; but,

Having now fully described our invention, what we claim as new, and desire to secure by Letters Patent, is as follows:

The within-described method or process of producing paper from tobacco with the whole or any portion of the strength retained, as herein set forth.

P. M. CONSUEGRA.
RAMON ANTIGÜEDAD.

Witnesses:

W. C. DEY,
C. C. LIVINGS.