No. 767,421. PATENTED AUG. 16, 1904.

L. NAUDIN.

APPARATUS FOR EXTRACTING AIR AND BISULFID OF CARBON CONTAINED IN VISCOSE.

NO MODEL. APPLICATION FILED MAR. 31, 1904.

Fig. 1.

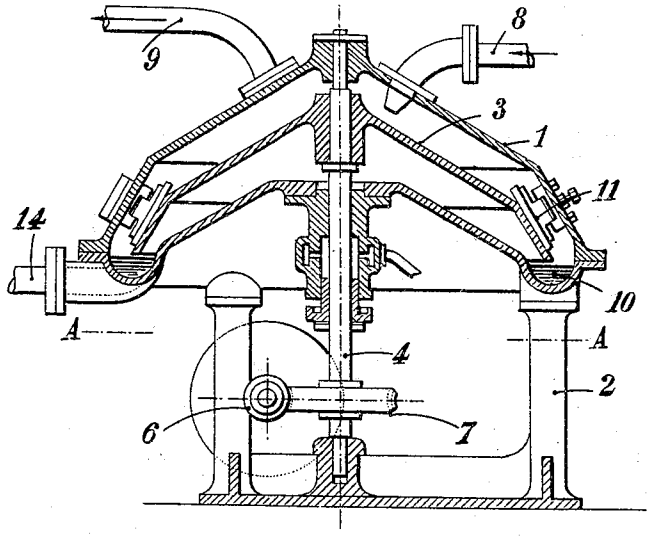


Fig. 2.

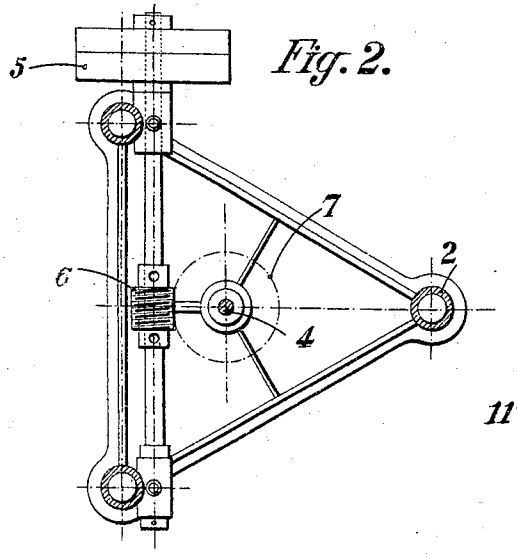
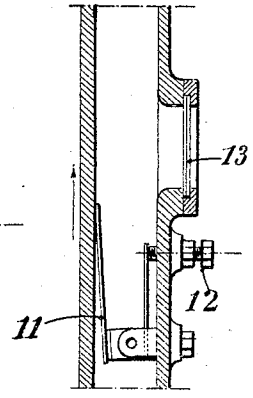


Fig. 3.



Witnesses,

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No. 767,421. Patented August 16, 1904.

UNITED STATES PATENT OFFICE.

LAURENT NAUDIN, OF PARIS, FRANCE, ASSIGNOR TO LA SOCIÉTÉ FRANCAISE DE LA VISCOSE, OF PARIS, FRANCE.

APPARATUS FOR EXTRACTING AIR AND BISULFID OF CARBON CONTAINED IN VISCOSE.

SPECIFICATION forming part of Letters Patent No. 767,421, dated August 16, 1904.

Application filed March 31, 1904. Serial No. 201,021. (No model.)

To all whom it may concern:

Be it known that I, LAURENT NAUDIN, engineer, a citizen of the French Republic, residing at Paris, France, have invented certain new and useful Improvements in Apparatus for Extracting Air and Bisulfid of Carbon Contained in Viscose, of which the following is a specification.

Viscose intended for the manufacture of articles of small mass, such as filaments, films, and even of articles of great mass, should be free from all traces of air contained in suspension and of free bisulfid of carbon contained in solution therein. In fact, in spinning viscose, for instance, the thread breaks off short at the thread-drawing device on the occurrence of bubbles of air or of sulfocarbon gas in the viscose being drawn from the fixing-bath.

Now this invention has for its object to provide an apparatus which shall enable the air and bisulfid of carbon contained in the viscose to be extracted in an economical, simple, and rapid manner.

In the accompanying drawings, Figure 1 is a section of the apparatus. Fig. 2 is a section through the line A A, of Fig. 1. Fig. 3 shows a detail.

A convenient constructional form of apparatus according to the present invention may comprise a conical vessel or viscose-receiver 1, resting on, say, three feet 2. In the interior of this receiver, which is designed for the treatment of the viscose, there is adapted to rotate a conical part 3, composed of polished steel, for instance, keyed on a shaft 4, that is actuated from outside the viscose-receiver by means of suitable mechanism, such as a pulley 5, worm 6, and gear or worm wheel 7. The upper part of the viscose-receiver is fitted with two pipes 8 9, of which one, 8, communicates with a supply of viscose, and the other, 9, communicates with a vacuum-pump. After a practical vacuum has been formed in the viscose-receiver the stop-cock of the pipe 8, communicating with the supply of viscose, is opened and the conical part 3 in the viscose-receiver is caused to rotate at the rate of about six revolutions per minute.

The viscose which enters through the viscose-supply pipe 8 spreads out in a very thin layer over the rotating conical part and by the action of centrifugal force and of gravity travels to the lower part of the rotating conical part. In its travel the viscose is squeezed against the conical part 3 by suitable blades or stirrers 11, and it then flows or falls into a receiving-channel 10. The rate of supply of the viscose to the viscose-receiver should be such that the whole of the viscose arriving in the said receiving-channel 10 shall have been completely freed from every trace of air and bisulfid of carbon. A set-screw 12, Fig. 3, is provided to enable more or less stiffness to be imparted to the stirring-blades from the outside.

An observation-hole 13 is provided in the shell of the viscose-receiver to enable the working of the apparatus to be controlled or regulated. The viscose flows from the aforesaid receiving-channel 10 through a discharge-pipe 14 into a vacuum vessel communicating with the viscose-receiver.

This apparatus can be cleaned without being taken to pieces by simply introducing water under pressure through the viscose-supply pipe 8 into the viscose-receiver while the movable conical part is being caused to rotate rapidly. The washing-water is then expelled, preferably by means of compressed air.

Having thus described and ascertained the nature of my invention and in what manner the same may be performed, I declare that what I claim is—

An apparatus for extracting the air and bisulfid of carbon contained in the viscose having a conical vessel communicating with a vacuum vessel, a conical part rotating in the said conical vessel, a supply-pipe at the upper part of the conical vessel, suitable blades or stirrers bearing against the rotating conical part and a channel and a discharge-pipe in the lower part of the conical vessel, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

LAURENT NAUDIN.

Witnesses:
HANSON C. COXE,
PAUL BLUM.