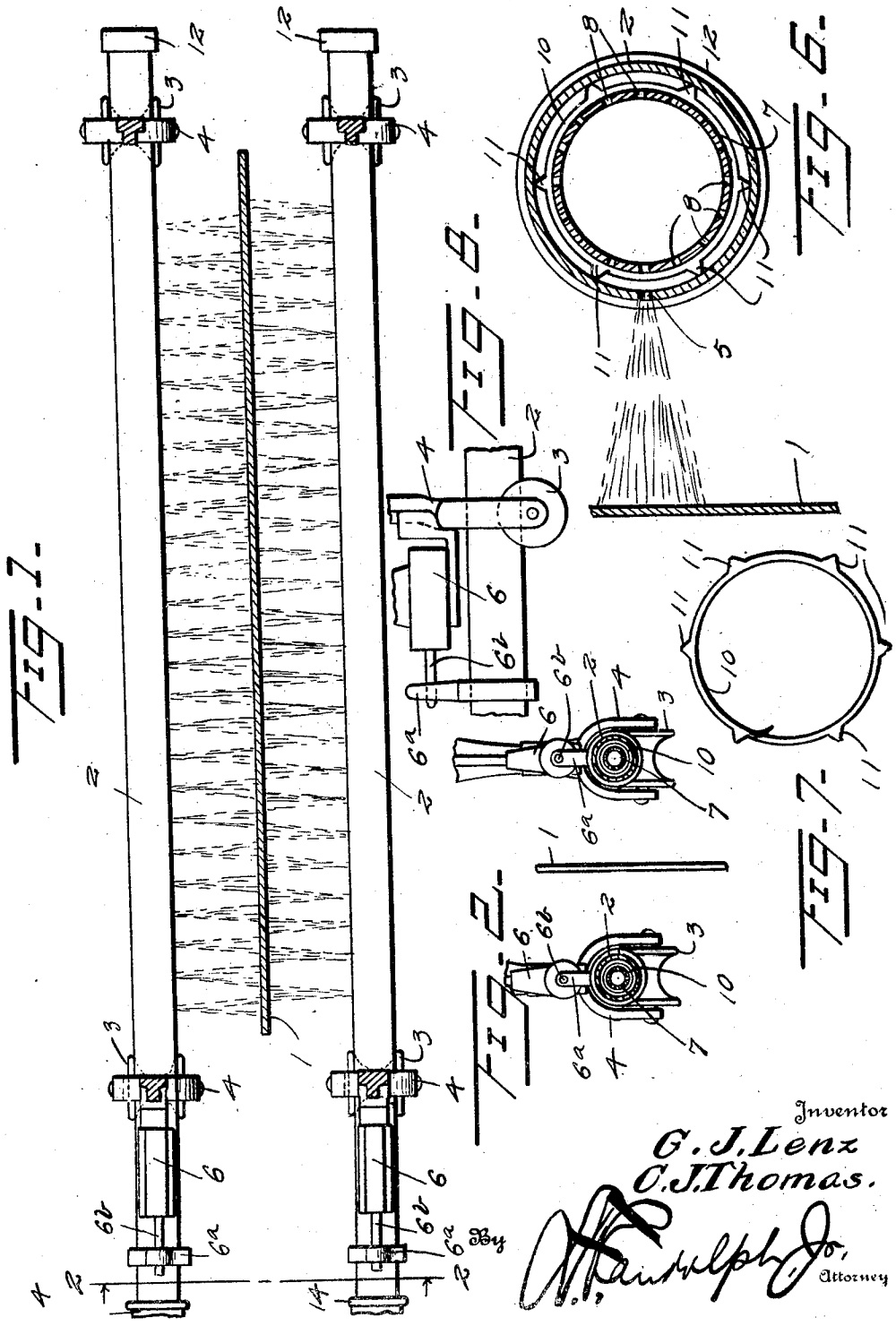
July 27, 1926. 1,594,306

G. J. LENZ ET AL

SPRAYING DEVICE

Filed Jan. 17, 1924 2 Sheets-Sheet 1

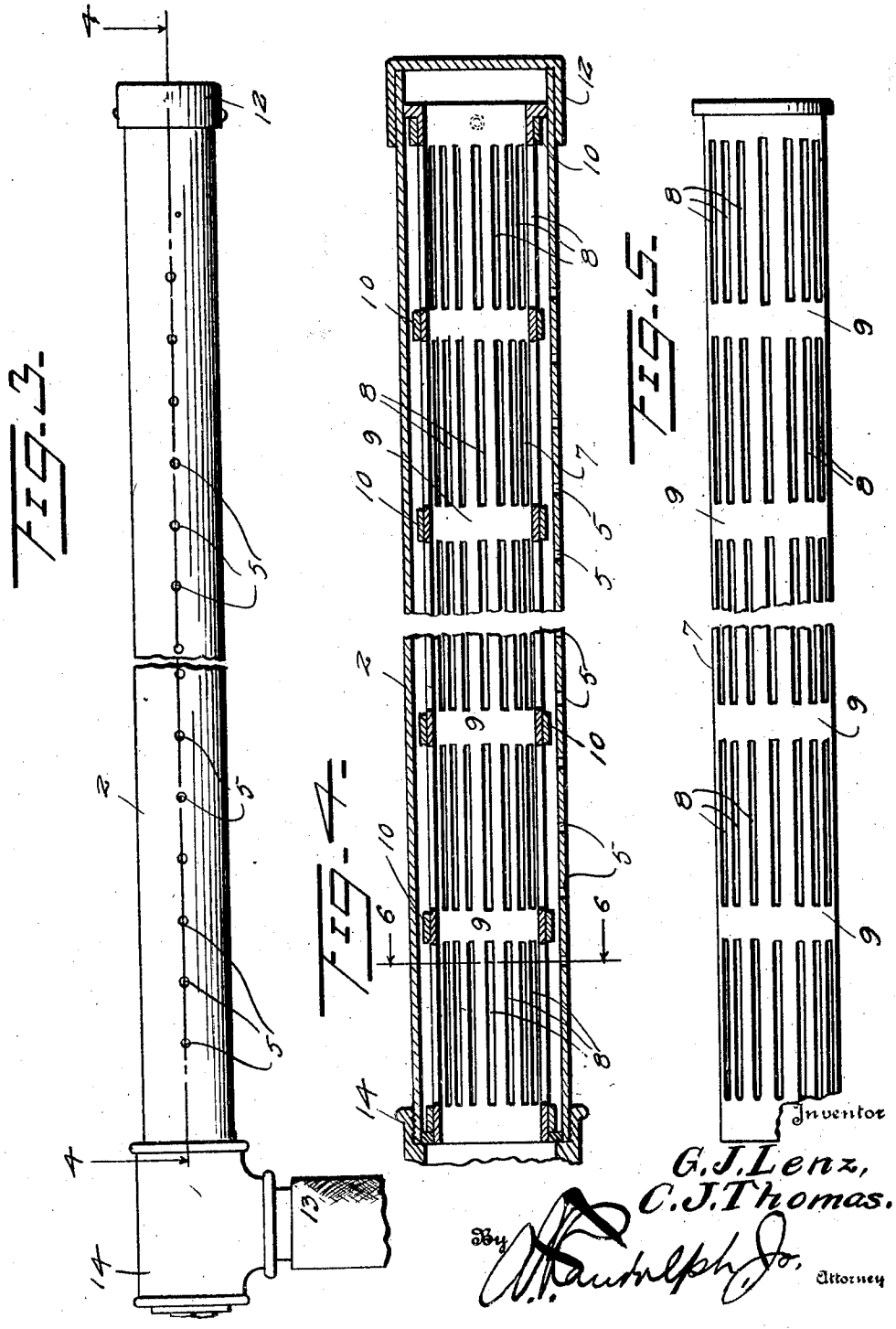


July 27, 1926. 1,594,306

G. J. LENZ ET AL

SPRAYING DEVICE

Filed Jan. 17, 1924 2 Sheets-Sheet 2



Patented July 27, 1926. 1,594,306

UNITED STATES PATENT OFFICE.

GEORGE J. LENZ AND COMADORE J. THOMAS, OF GREEN BAY, WISCONSIN.

SPRAYING DEVICE.

Application filed January 17, 1924. Serial No. 686,890.

The invention relates to means for cleaning the traveling apron used in paper and pulp mills for gathering the pulp in the formation of a sheet of paper, and consists of removable spray pipes disposed upon opposite sides of the apron and adapted to deliver jets of water thereon, and means for imparting a reciprocating movement to the spray pipe to insure a distribution of the water and prevent the apron from wearing in streaks.

Other objects and advantages will be apparent and suggest themselves as the nature of the invention is understood.

While the drawings illustrate an embodiment of the invention it is to be understood that in adapting the same to meet different conditions and requirements, various changes in the form, proportion and minor details of construction may be resorted to without departing from the spirit of the invention.

Referring to the accompanying drawings forming a part of the application:

Figure 1 is an elevational view of a spraying device embodying the invention, the apron being shown in section,

Figure 2 is a section on the line 2—2 of Figure 1,

Figure 3 is a side view of one of the spray pipes showing the same on a larger scale and having the intermediate portion broken away,

Figure 4 is an enlarged sectional view on the line 4—4 of Figure 3,

Figure 5 is a side view of the tubular strainer disposed within the spray pipe,

Figure 6 is a sectional view on the line 6—6 of Figure 4,

Figure 7 is an elevational view of a centering and spacing ring for the tubular strainer, and

Figure 8 is a detail view of one unit of the spray pipe supporting and reciprocating means.

Corresponding and like parts are referred to in the following description and designated in the several views of the drawings by like reference characters.

The numeral 1 designates the endless apron which may be either of felt or wire fabric such as generally employed in paper and pulp mills. The numeral 2 designates a spray pipe, one being disposed upon each side of the apron 1. Each of the spray pipes 2 is provided along the side facing the apron 1 with a plurality of openings 5 for the discharge of water in jets, as indicated most clearly in Figures 1 and 6. The spray pipes are mounted to admit of a reciprocatory movement being imparted thereto whereby to prevent the jets of water from causing streaks on the apron 1, particularly when the latter is of felt. Any suitable means may be employed for supporting the spray pipes 2, and this means may, as shown in the drawings, comprise rollers 3 upon which the spray pipes are mounted and brackets 4 on which the rollers are journaled and which may be secured to any suitable part of the paper making machine. The means for reciprocating the spray pipes 2 may comprise a motor or motors of any suitable type or the pipes may be reciprocated directly from any moving part of the machine. As shown in the drawings the pipe reciprocating means may comprise two hydraulic or other motors 6 of the reciprocating type and arms 6^a secured to the spray pipes 2 and connected to the piston rods 6^b of the motors. The motors 6 are as clearly illustrated in Figure 8 of the drawings, supported upon two of the brackets 4.

A tubular strainer 7 is disposed within each of the spray pipes 2 and consists of a pipe provided in its sides with narrow slots 8 which are separated by intact circular portions 9 upon which are mounted centering and spacing rings 10 provided with outwardly disposed studs 11. These strainers are removably fitted within the spray pipes and for this purpose a cap 12 closes an end of each spray pipe and is detachable to admit of removal of the strainer and replacement thereof after being cleaned. A flexible pipe 13 supplies water to each of the spray pipes and may connect with a suitable source of supply. The pipes 13 are connected to the spray pipes 2 through the medium of couplings 14. The strainer removes gravel, trash and the like from the water and prevents choking of the discharge openings 5. The strainer may be cleaned by flushing or by removing it from the spray pipe as occasion may require.

What is claimed is:

1. In combination with a pulp-receiving apron or the like, a spraying device operable to spray the apron, and means to impart bodily movement to the device incidental to spraying to avoid streaking of the apron,

said means being a motor deriving its power fluid from the same source as the spray.

2. In combination with a pulp-receiving apron or the like, a spray device therefor consisting of a tube, a foraminous strainer of less diameter within the tube, said strainer having imperforate portions, spacing rings surrounding the imperforate portions, and studs extending from said rings and engaging the inner wall of the tube.

In testimony whereof we affix our signatures.

GEORGE J. LENZ.
COMADORE J. THOMAS.