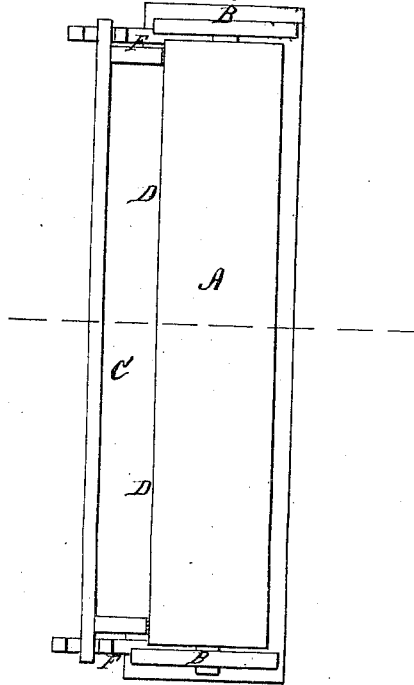
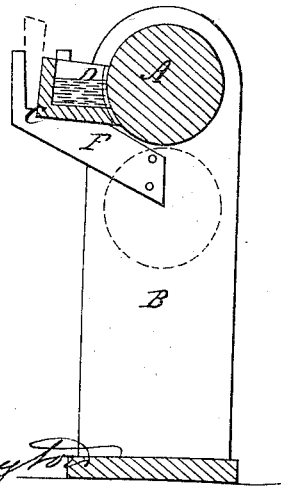


*H. Chapman.*  
*Paper Mach.*  
*Nº 51,293. Patented Dec. 5, 1865.*

*Fig. 1*



*Fig. 2.*



*Witnesses.*  
*Nºs* *Sherrin*  
*W. H. Frington*

*Inventor.*  
*H. Chapman*  
*By* *Munn & Co.*  
*Attys.*

# UNITED STATES PATENT OFFICE.

HENRY CHAPMAN, OF CATAWISSA, PENNSYLVANIA.

## IMPROVEMENT IN PAPER MACHINERY.

Spécification forming part of Letters Patent No. 51,293, dated December 5, 1865.

*To all whom it may concern:*

Be it known that I, HENRY CHAPMAN, of Catawissa, in the county of Columbia and State of Pennsylvania, have invented a new and useful Improvement in Paper Machinery; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

The object of this invention is to prevent the adherence of the paper sheet, as it passes through and between the "wet-press rollers," so-called, of paper-making machines, to the upper roller of the same; and it consists in combining with the said rollers a trough open along its side in contact with the roller, in which trough sal-soda or other alkaline solution or solutions are placed, that, as the roller revolves, lubricates the same, and thus prevents the adhesion thereto of the wet sheet of paper as it passes through the machine, the edges of the trough in contact with the roller being packed with any suitable material, to prevent the escape of the fluid solution from it.

In accompanying plate of drawings my improvement is illustrated, Figure 1 being a plan or top view, and Fig. 2 a transverse vertical section taken in the plane of the line *xx*, Fig. 1.

A in the drawings represents the upper wet-press roller of a paper-machine, hung and turning in bearings at each end of uprights B

B, the lower press-roller being represented in Fig. 2 in red lines. Between these rollers the wet sheet-paper is passed, and in order to prevent its adherence to the upper one, A, which, as before stated, is the object of this invention, I arrange along and upon one side of the same, for its whole length, a trough, C, open at its side D in contact with the roller, and sustained at each end in supports F F, projecting from each of the uprights B B, before referred to. In this trough C sal-soda or other alkaline solution or solutions are placed, as represented by blue lines in Fig. 2, which solution, as the roller revolves, lubricates the same, and thus prevents the adherence of the wet sheet of paper thereto as it is fed to and between the two rollers, any suitable material for packing being used upon the edges of the trough in contact with the roller to prevent the escape of its liquid between their joint. The trough can be, by any suitable means, such as wedges, set up and against the roller with any desired pressure.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The trough C, arranged as and for the purpose described.
2. The use of sal-soda or other alkaline solution or solutions for the purpose specified.

HENRY CHAPMAN.

Witnesses:

C. W. McKELVY,  
JAMES MATEER.