No. 709,034. Patented Sept. 16, 1902.

H. PARKER.

PAPER MAKING WIRE FOR PAPER MAKING MACHINES.

(Application filed Mar. 29, 1901.)

(No Model.)

Fig. 1

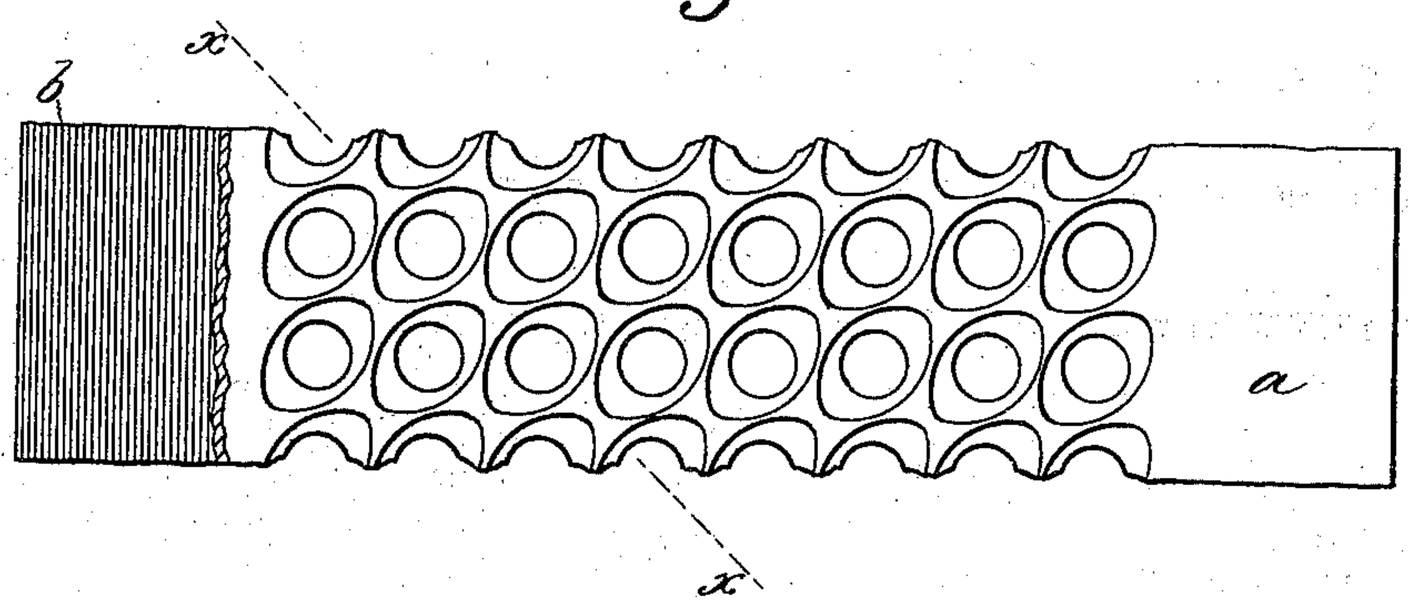
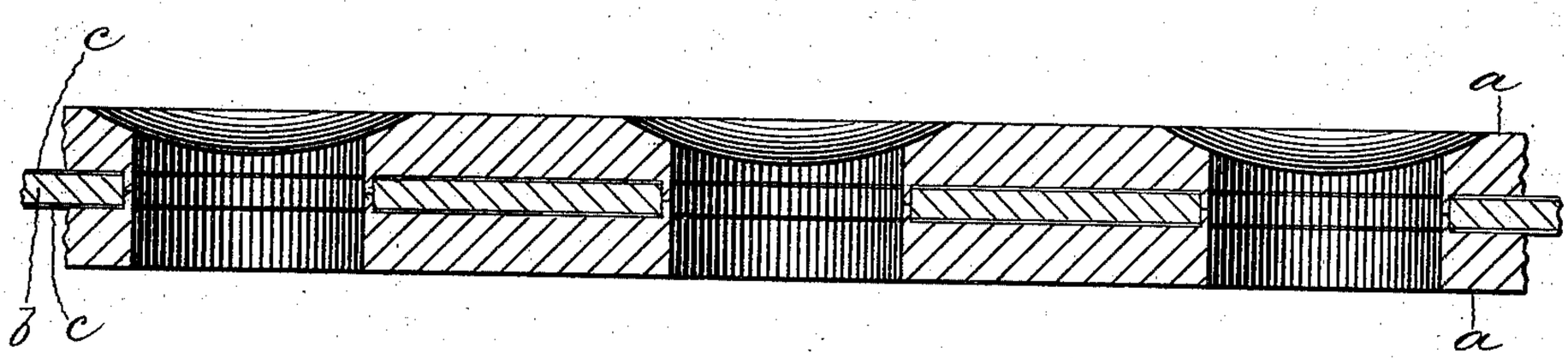


Fig. 2



Witnesses
F. M. Bragg.
C. E. Burkland.

Inventor
Howard Parker
By Simmons & Hart
Attorneys.

UNITED STATES PATENT OFFICE.

HOWARD PARKER, OF BELLOWS FALLS, VERMONT.

PAPER-MAKING WIRE FOR PAPER-MAKING MACHINES.

SPECIFICATION forming part of Letters Patent No. 709,034, dated September 16, 1902.

Application filed March 29, 1901. Serial No. 53,534. (No model.)

To all whom it may concern:

Be it known that I, HOWARD PARKER, a citizen of the United States of America, residing at Bellows Falls, in the county of Windham and State of Vermont, have invented a certain new and useful Improvement in Paper-Making Wire for Paper-Making Machines, of which the following is a specification, reference being had to the accompanying drawings, wherein—

Figure 1 is a view of a portion of a belt embodying said improvement, wherein a part of the perforated plate is left exposed. Fig. 2 is a view of what is shown in Fig. 1, in vertical section on the plane *x x* of said Fig. 1, the scale being greatly enlarged in this figure in order to bring out the different coats of material.

The object of the improvement is the production of a paper-making wire for a paper-making machine. One function of such a structure is used in a belt underlying and supporting a "Fourdrinier wire." These wires are extremely expensive, and when used in connection with the ordinary suction-boxes they are easily torn, so that their life is extremely short. It is important, therefore, for the economical operation of a paper-making machine that some agency be interposed between this wire and the suction-box to relieve the wire of this hard wear, and the belt which is herein shown and described is particularly adaptable for this purpose.

In the accompanying drawings, the letter *a* denotes rubber, *b* perforated metal, and *c* a plating, which may be an electroplate of lead on the plate *b*. The metal *b* is by preference aluminium-bronze, although steel or other metal of sufficient tensile strength and susceptible of being electroplated will answer.

In the manufacture of this article the metal is by preference first perforated, then electroplated with lead, and then united to the rubber coating in and by the well-known process of vulcanization. One main function of the presence of the metal in the structure is to prevent the rubber from unduly stretching. The rubber has perforations leading to the perforations in the metal.

It has been found by experiment that rubber may be secured to or upon certain metals, such as lead, by means of vulcanization and without the use of cement—that is to say, that certain metals have a greater affinity for rubber than other metals. All that I require is that the perforated metal plate shall have a surface which has an affinity for rubber.

I claim as my improvement—

1. A paper-making wire for paper-making machines comprising a perforated metallic plate with a surface having an affinity for rubber, and the coating of rubber united in and by vulcanization to said metallic plate.

2. A paper-making wire for paper-making machines comprising a metallic plate having a surface which has an affinity for rubber, and the coating of rubber united in and by vulcanization to said metallic plate and extending through the perforations therein, all substantially as described.

3. A paper-making wire for paper-making machines comprising the plate of perforated metal, the plating of lead on said plate, and the coating of rubber united in and by vulcanization to the coating of lead and extending through the perforations in said plate of perforated metal, all substantially as described.

HOWARD PARKER.

Witnesses:
NELLIE M. PARKER,
DRUZILLA T. PENNELL.