

A. ST. C. WINCHESTER.
METALLIC PLATE SCREEN FOR SCREENING PAPER PULP.

No. 105,755.

Patented July 26, 1870.

Fig. 1.

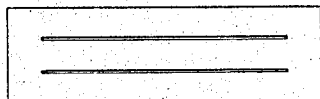


Fig. 2.



Fig. 3.



Fig. 4.



Witnesses.

S. A. Piper

L. N. Moore

St. Clair Winchester

by his attorney

W. W. Eddy

UNITED STATES PATENT OFFICE.

ARTHUR ST. CLAIR WINCHESTER, OF BOSTON, MASSACHUSETTS, ASSIGNOR
TO HIMSELF AND JAMES SETON PARSONS, OF SAME PLACE.

IMPROVED METALLIC-PLATE SCREEN FOR SCREENING PAPER-PULP.

Specification forming part of Letters Patent No. 105,755, dated July 26, 1870.

To all whom it may concern:

Be it known that I, ARTHUR ST. CLAIR WINCHESTER, of Boston, of the county of Suffolk and State of Massachusetts, have made a new and useful invention having reference to Metallic Plate Screens for Screening Paper-Pulp; and I do hereby declare the same to be fully described in the following specification, the accompanying drawings exhibiting a screen of the kind so described.

Of such drawings, Figure 1 is a top view, Fig. 2 a longitudinal section, and Fig. 3 a transverse section, of it. Fig. 4 is a section on an enlarged scale of a part of the plate, showing two or more of its slits with the plating in its arrangement with reference to them.

On March 2, 1869, Letters Patent No. 87,385 were granted to myself and James S. Parsons on an improved metallic-plate screen for screening paper-pulp, such having been invented by me. The process claimed and de-

scribed by me in the specification of such patent consisted in first sawing or making each of the slits of the metallic or brass body or plate of the screen by a tool or saw, and subsequently depositing on the opposite sides of such slit, or on the same and the external surface or surfaces of the plate, a metallic plating by means of an electroplating-bath and an electric current and battery. Since that invention was made and patented I have discovered a better and cheaper method of making a pulp-screen with a resisting plating of copper. I have found that brass, of which the body of such screens is made, by being composed of two metals—zinc and copper—has the zinc not uniformly distributed throughout the copper, and that in consequence of this while the screen is in use the wear of the edges of the slits is very uneven, as they are not of uniform induration. I have also discovered that by applying to the upper surface of the brass plate, before the slits are cut in it, a thin layer of copper by means of an

electroplating-bath and a battery connected therewith, or, in other words, by electroplating the upper surface of the metallic plate with copper, I am enabled to provide the surface with a homogeneous plating which, by covering the plate at the upper parts of the edges of each slit, will answer all necessary purposes of protecting the slit from uneven wear. After the plate may have been so treated or prepared, the slits are to be cut in it and through the homogeneous plating. My present invention saves the necessity of applying the coating of copper to the opposite inner sides of each of the slits, thereby diminishing the width of the slits when it may not be desirable so to do. With my former invention the slits were made in the brass plate before it was electroplated with copper; consequently they were not cut through the copper; but with my present invention or improvement I not only prepare the plating first, and only on the upper surface of the plate, but I afterward cut the slits through both the copper plating and the brass body or plate.

What, therefore, I claim as my new invention is—

1. The combining with the plate by the electroplating process a homogeneous metallic or copper coating applied to one face of it, and subsequently sawing or cutting each of the slits through such coating and the plate.
2. The improved manufacture or paper-pulp screen as made by combining with a metallic or brass plate a homogeneous coating of resisting metal or copper applied to its upper surface by the electroplating process; and subsequently cutting the slits through such coating and plate, the whole being substantially as set forth.

ARTHUR ST. CLAIR WINCHESTER.

Witnesses:

R. H. EDDY,
S. N. PIPER.