

(No Model.)

W. GRAY.

PAPER STOCK DRAINER.

No. 318,180.

Patented May 19, 1885.

Fig. 1

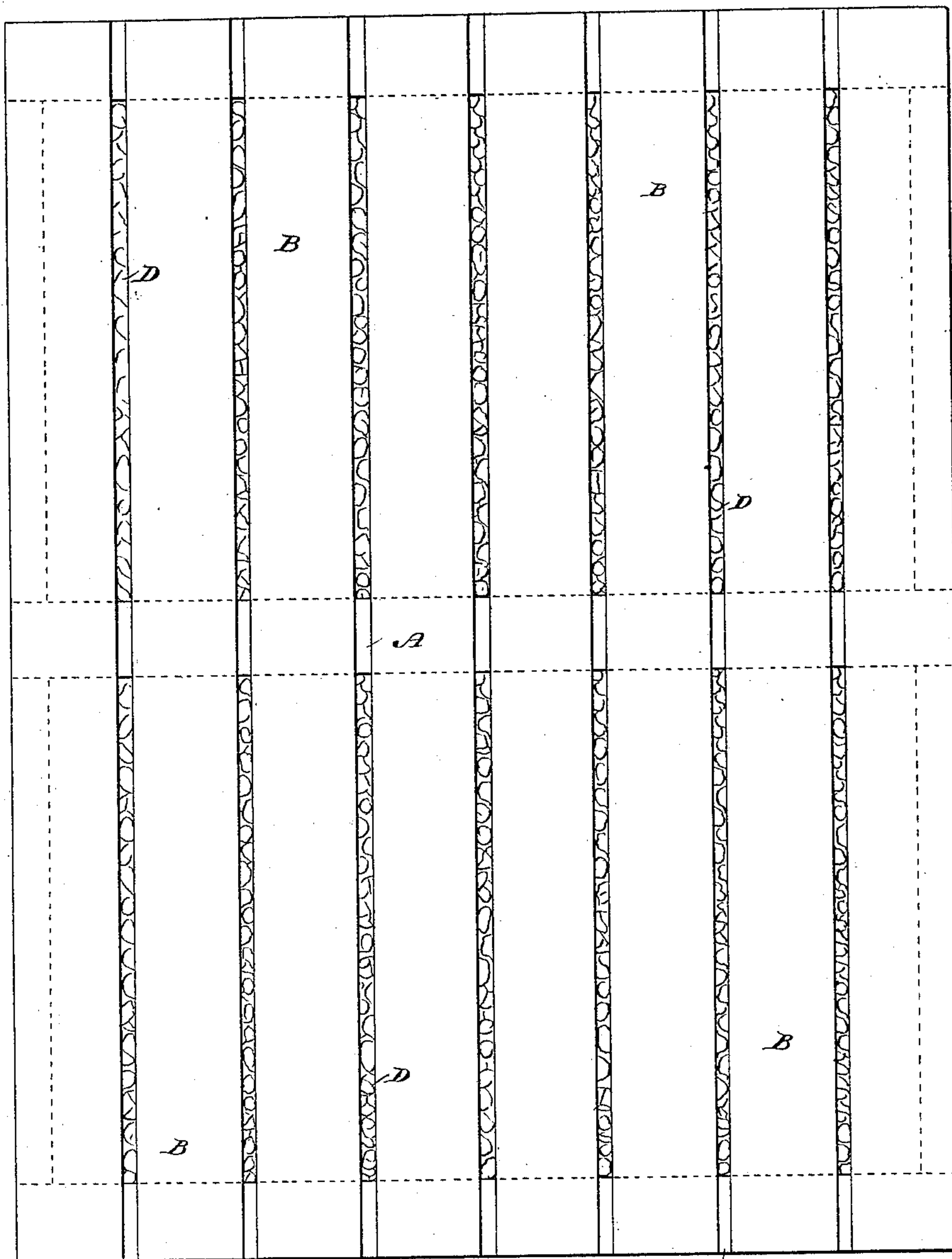
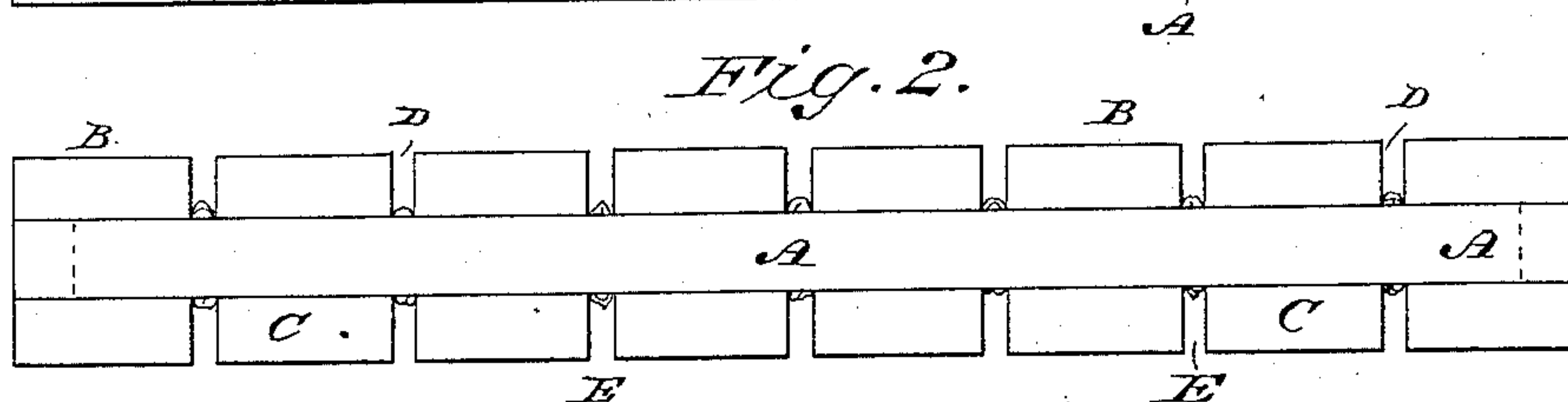


Fig. 2.



WITNESSES

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UNITED STATES PATENT OFFICE.

WATSON GRAY, OF THREE RIVERS, MICHIGAN, ASSIGNOR OF ONE-HALF TO
RICHARD H. WEBB, OF SAME PLACE.

PAPER-STOCK DRAINER.

SPECIFICATION forming part of Letters Patent No. 318,180, dated May 19, 1885.

Application filed April 17, 1885. (No model.)

To all whom it may concern:

Be it known that I, WATSON GRAY, of Three Rivers, in the county of St. Joseph and State of Michigan, have invented certain Improve-
5 ments in Paper-Stock Drainers, of which the following is a specification, reference being had to the accompanying drawings.

My improvements relate to improved pa-
per-stock drainers of the kind for which I
10 recently applied for patent, (my application being numbered 142,924, and dated September 12, 1884, which application has been al-
lowed,) consisting of two layers of wooden
15 slats a little separated from each other at their edges, so as to leave spaces between them, and having inclosed between the layers—that is to say, within the space between the two se-
ries of slats—a body of gravel, broken stone, or the like suitable straining material, so that
20 the water in the pulp or paper-stock in a receptacle will pass down between the edges of the upper layer of slats, then through the body of gravel or the like, and then out between the edges of the lower layer of slats. This
25 kind of stock-drainer has material and important advantages in practice over those heretofore used, as set forth somewhat in my said application; but I have found that there is a special advantage of much practical con-
30 sequence in the peculiar construction which constitutes my present invention, which I will now describe in detail. In my said applica-
tion the wooden slats making the upper lay-
ers and those making the lower layers are
35 placed at right angles to each other. Now, while such a structure has manifest advan-
tages in practice, it lacks one important quality in large measure, which I have secured per-
fectly by my present device by simply secur-
40 ing my upper and lower layers of slats in place on the frame parallel to each other—that is to say, the upper ones directly over the under ones, so that the upper spaces be-
tween the edges of the slats are directly over
45 those between the edges of the lower slats. The result is that the drainer can be used one side up to drain for a while, and the accumu-

lations of stock or fiber and refuse matter will all be in the gravel directly opposite and be-
tween the upper and lower spaces between 50
the edges of the two layers or slats. When it accumulates, as it will in time, so as to partially obstruct the working of the drainer, and it becomes desirable to clean it, all that is necessary is to reverse the drainer—that is, 55
to turn it over and continue it in use, and it will promptly be perfectly cleaned and freed of accumulations by the action of the water draining out of the stock. This of course cannot be the case to a sufficient extent in my 60
said drainer, in which the layers of slats are at right angles to each other.

My present device has all the advantages of the former, with the important addition of being self-cleaning in use, owing to the differ- 65
ent construction.

In the drawings, Figure 1 is a plan view, and Fig. 2 an end view, of my improved de-
vice.

Referring to the letters upon the drawings, 70
A indicates the frame of the drainer; B, the upper series of slats separated by suitable small spaces; and C, the lower series of slats parallel with and directly under the upper series, so that the spaces D and E between the 75
edges of the two series of slats are coincident, or nearly so.

Having thus described my improvement, what I claim as new, and desire to secure by Letters Patent of the United States, is— 80

As an improvement in paper-stock drain-
ing, a drainer for the bottom of a paper-stock receptacle composed of a frame, an upper and
lower series of slats parallel to each other, so
that the spaces between the edges of the slats 85
are about coincident, and a body of straining material inclosed in the space between the two series of slats, substantially as set forth.

In testimony whereof I have hereunto sub-
scribed my name.

WATSON GRAY.

Witnesses:

W. O. REALER,
F. L. TIMM.