

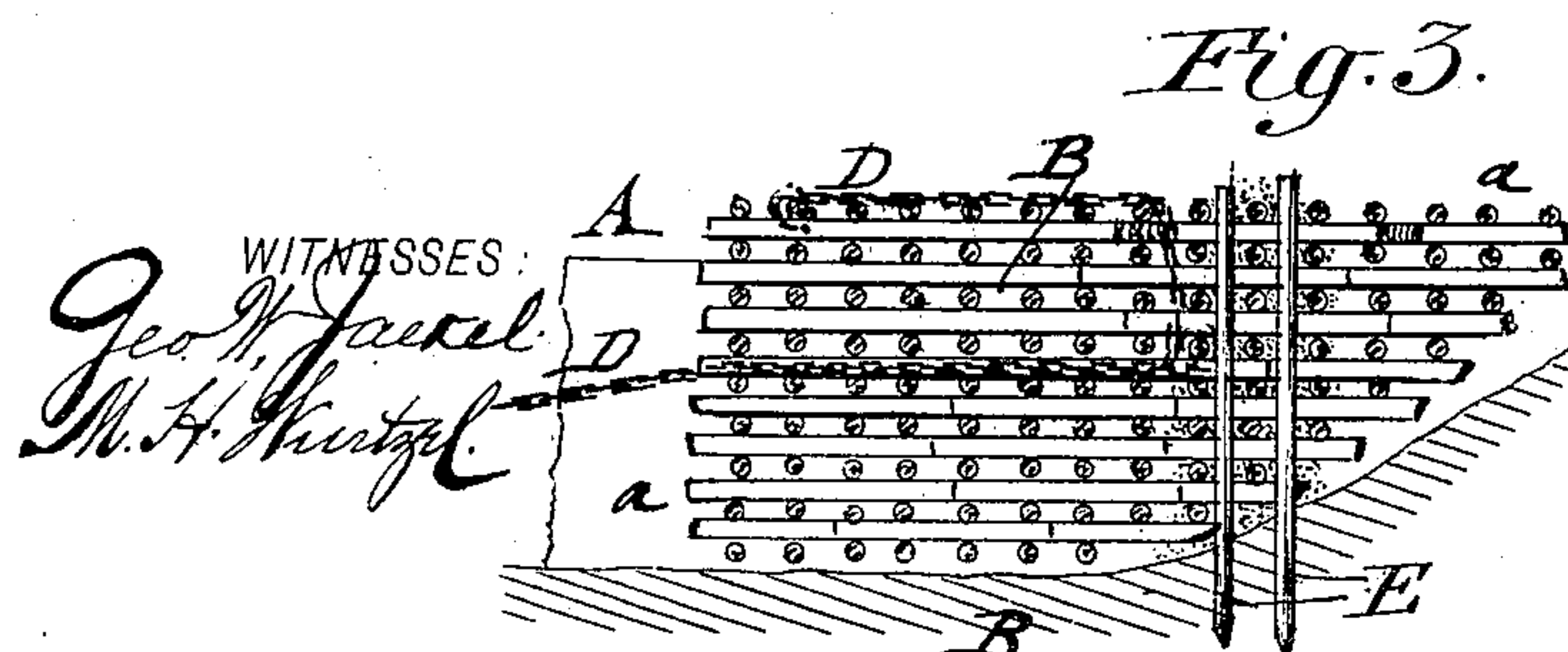
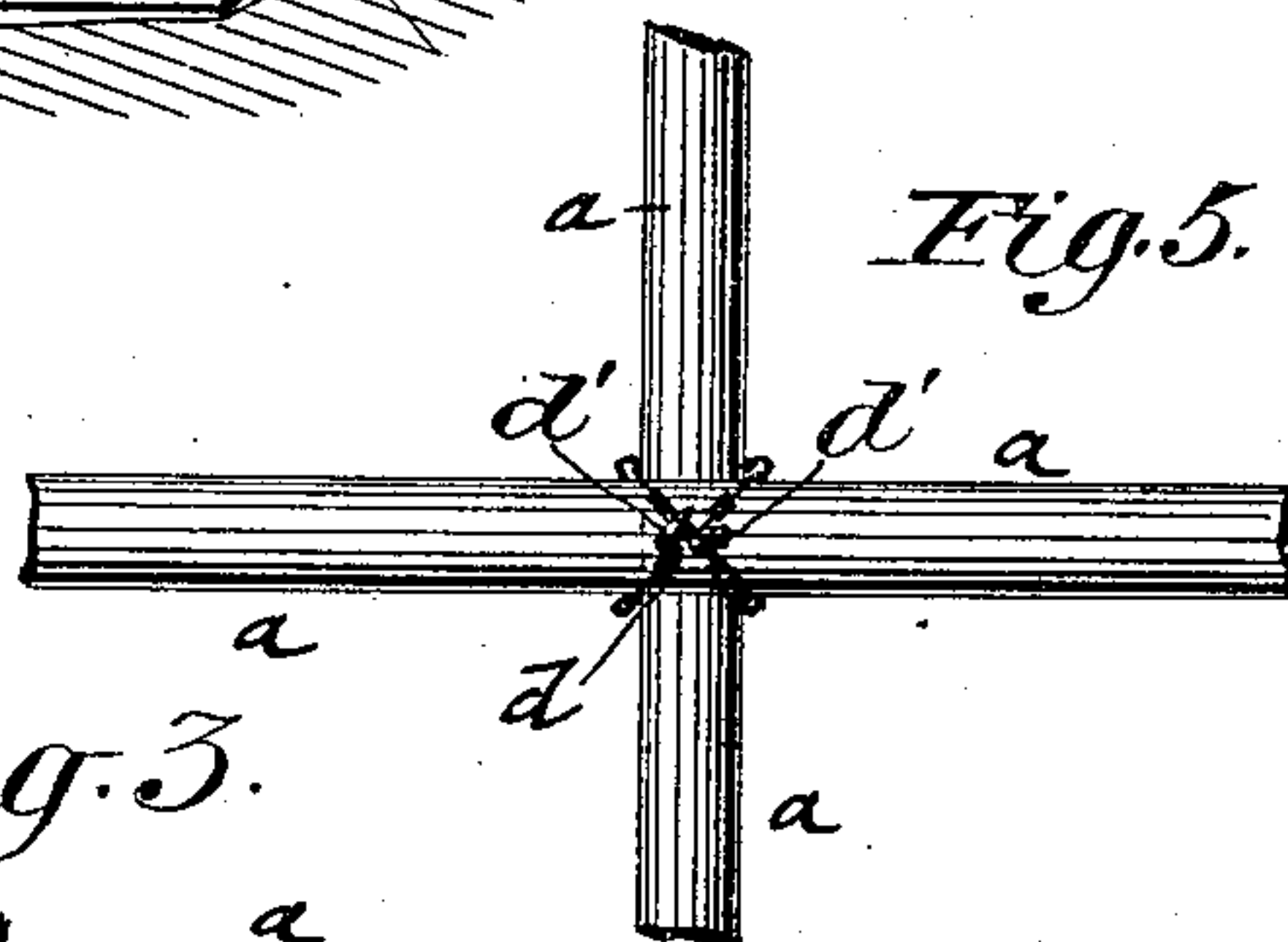
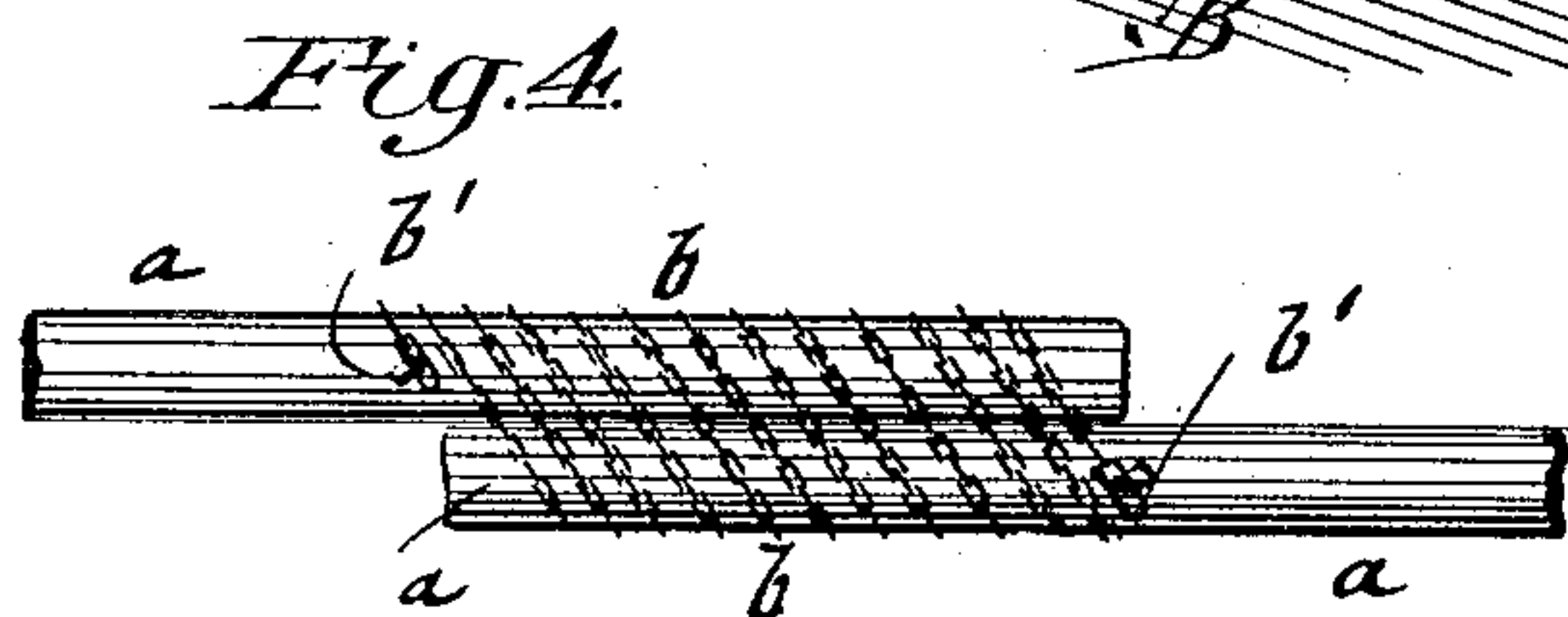
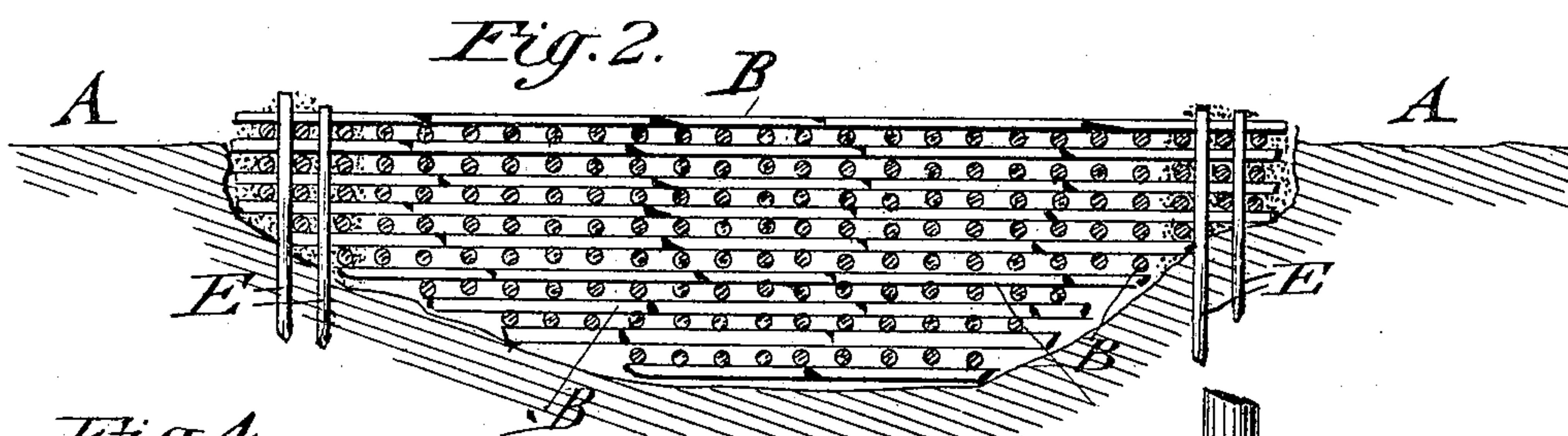
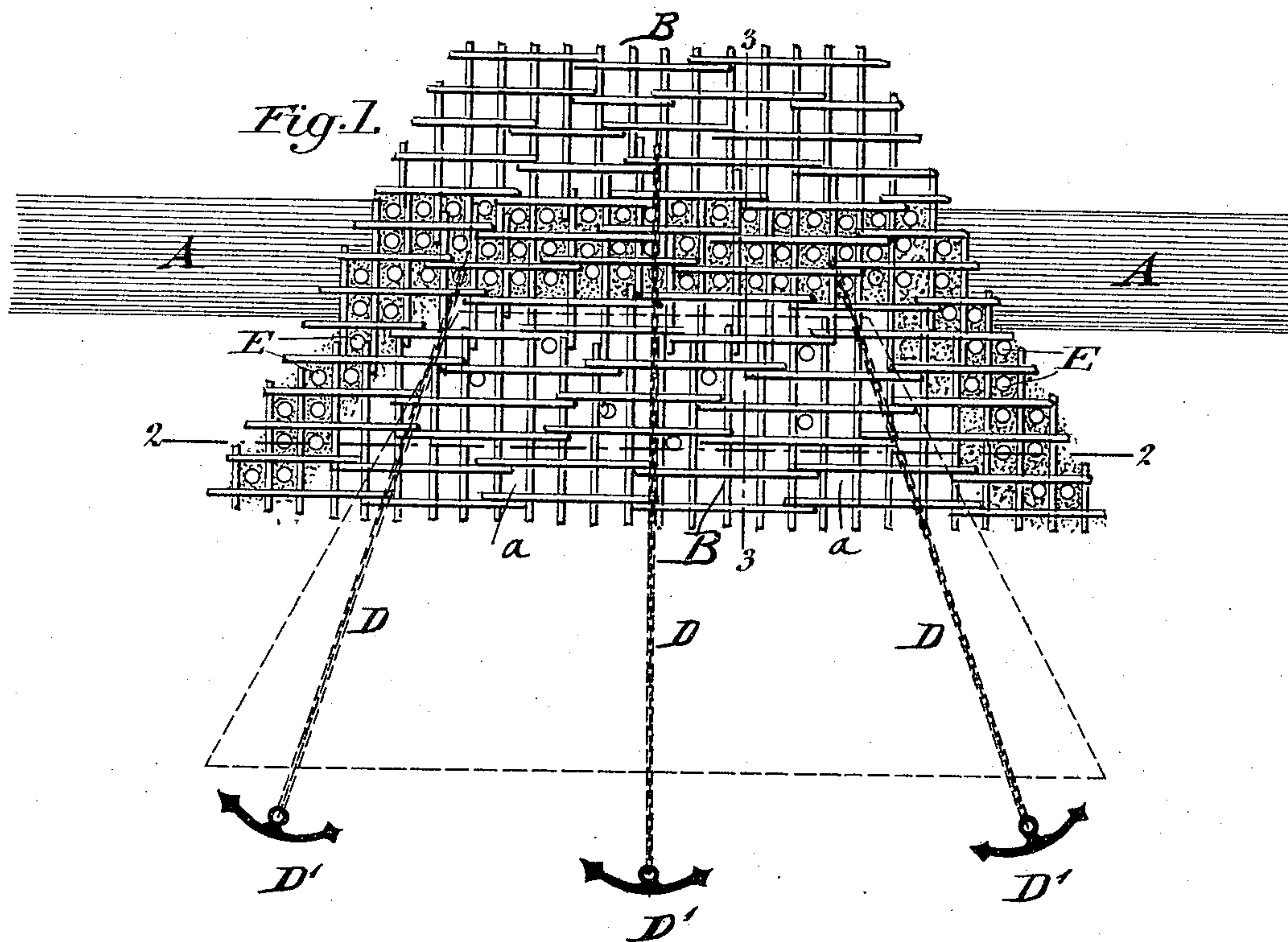
No. 616,690.

Patented Dec. 27, 1898.

W. H. SCHNEIDER.
DAM FOR REPAIRING BREAKS IN LEVEES.

(Application filed Mar. 4, 1898.)

(No Model.)



WITNESSES:
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UNITED STATES PATENT OFFICE.

WILLIAM H. SCHNEIDER, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF TO
FREDERICK THEODORE RALF, OF SAME PLACE.

DAM FOR REPAIRING BREAKS IN LEVEES.

SPECIFICATION forming part of Letters Patent No. 616,690, dated December 27, 1898.

Application filed March 4, 1898. Serial No. 672,508. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. SCHNEIDER, a citizen of the United States, residing at New York, in the borough of Manhattan and State of New York, have invented certain new and useful Improvements in Dams for Repairing Breaks in Levees, of which the following is a specification.

This invention has reference to an improved means for quickly repairing and closing breaks in levees of rivers, so that the damage arising therefrom is reduced and the levee restored to its former efficiency; and the invention consists of a dam for closing breaks in levees which is made in a wedge-shaped structure formed of intercrossing logs that are tied together and secured in position in the break of the levee by means of anchoring-chains and piles and rendered water-tight by means of sand-bags and other filling material, as will be fully described hereinafter and finally pointed out in the claims.

In the accompanying drawings, Figure 1 represents a plan of a part of a break in the levee, showing my improved dam in position therein. Fig. 2 is a vertical transverse section through the dam on the line 2 2, Fig. 1. Fig. 3 is a vertical longitudinal section of the same on line 3 3, Fig. 1; and Figs. 4 and 5 are details showing the connection of the logs used in forming the floating dam.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, A represents a levee the break of which is to be closed. For this purpose a floating dam B is constructed, which is made of intercrossing logs or timber *a a*, that are cut near the levee or shipped to a point near the levee. The floating dam B is constructed in its outline in the form of a wedge, as shown in Fig. 1, and rounded off in cross-section, the width and depth of the dam corresponding to the width and depth of water at the point in the levee where the break has occurred. The intercrossing logs *a* of the dam B are tied together lengthwise by means of chains *b* or other fastening devices, that are wound around the ends of the logs or timbers, which overlap each other, as shown in Fig. 4, said chains or other fastenings being firmly attached at their ends to the logs

by means of spikes *b'*, which are driven through the links into the logs or timbers. The logs or timbers *a* are arranged at a certain distance from each other, both in longitudinal and transverse direction, and connected at the points of intersection of the different logs by cross-chains *d*, as shown in Fig. 5, the ends of which are likewise fastened by means of spikes *d'*, the same as in Fig. 4.

The floating dam B is made up in the manner described at a point on the river some distance from the break in the levee. It is floated to the place of use by means of steam-tugs and guided to enter the levee. The water rushing through the break will force the wedge-shaped dam B gradually forward in the break until the narrower end extends beyond the edge of the levee, as shown in Fig. 1. When the dam has settled sufficiently, it is retained in this position by means of chains D and anchors D', said chains passing through the body of the dam B and extending in diverging lines therefrom. The anchoring-chains D D' hold the dam firmly against the current passing through the break and in position in the levee. Piles E are then driven through the open portions of the dam in line with the levee and in the river, as shown in Fig. 4, said piles securing the same firmly in position, so that the anchoring-chains can be taken off. After the driving of the piles is completed the spaces in the dam B in line with the levee are gradually filled up by means of sand-bags and other filling material, so that the water is prevented from passing through the dam and so that the land side of the levee is thereby closed off from the river side. The dam is then gradually filled up with earth or other filling material, and thereby the break closed in a strong and effective manner, so that the overflowing of the land back of the levee is discontinued and the land protected and restored to its former use.

My improved dam for closing breaks in levees can be quickly constructed after a break occurs. It requires, however, first an investigation of the size of the break and of the depth of the water near the same, so that a dam of the required size can be built. This is then readily accomplished either by utiliz-

ing the timber in the woods near the break or by shipping logs from a suitable point of storage and making it up into a floating dam, as described, and then using the floating dam
 5 as a means for gradually closing the break and restoring the levee to its former effectiveness. As in most cases logs and timber are available near the levees and as chains and spikes, &c., are at hand ready for use, when-
 10 ever notice of a break is given the dam can be quickly constructed, floated in position in the break, and closed by the piles and filling material. In this manner breaks in levees can be quickly and effectively repaired, especially
 15 when proper care is taken that the breaks are immediately reported to the next station contiguous thereto and that the necessary means for constructing the floating dam are always kept on hand ready for use at certain stations.
 20 By thus closing the breaks quickly the enlarging of the breaks and the increasing damage resulting therefrom are confined within much smaller bounds and effective means provided by which breaks in levees can be
 25 quickly repaired and closed without recourse to the tedious and expensive methods heretofore employed.

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

1. A dam for repairing breaks in levees, consisting of a wedge-shaped structure formed of intercrossing logs or timbers tied together, anchoring-chains for holding said dam in po-

sition in the break, and piles driven into the openings between the logs, substantially as set forth.

2. A dam for repairing breaks in levees, consisting of a wedge-shaped structure formed of intercrossing logs tied together, piles driven into the spaces between the logs in line with the levee and filling material for closing up the spaces between the logs and piles, substantially as set forth.

3. For repairing breaks in levees, a floating framework for a dam, of wedge-shaped construction made narrower at the front and wider at the rear and composed of intercrossing logs or timbers tied together by chains or other fastening devices, substantially as set forth.

4. For repairing breaks in levees, the combination of a wedge-shaped floating framework for a dam, formed of intercrossing logs or timbers tied together by means of chains or other fastening devices, chains applied to the dam, and anchors at the end of said chains for holding the dam in position after it is floated into the break, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

WM. H. SCHNEIDER.

Witnesses:

PAUL GOEPEL,
 GEO. W. JAEKEL.