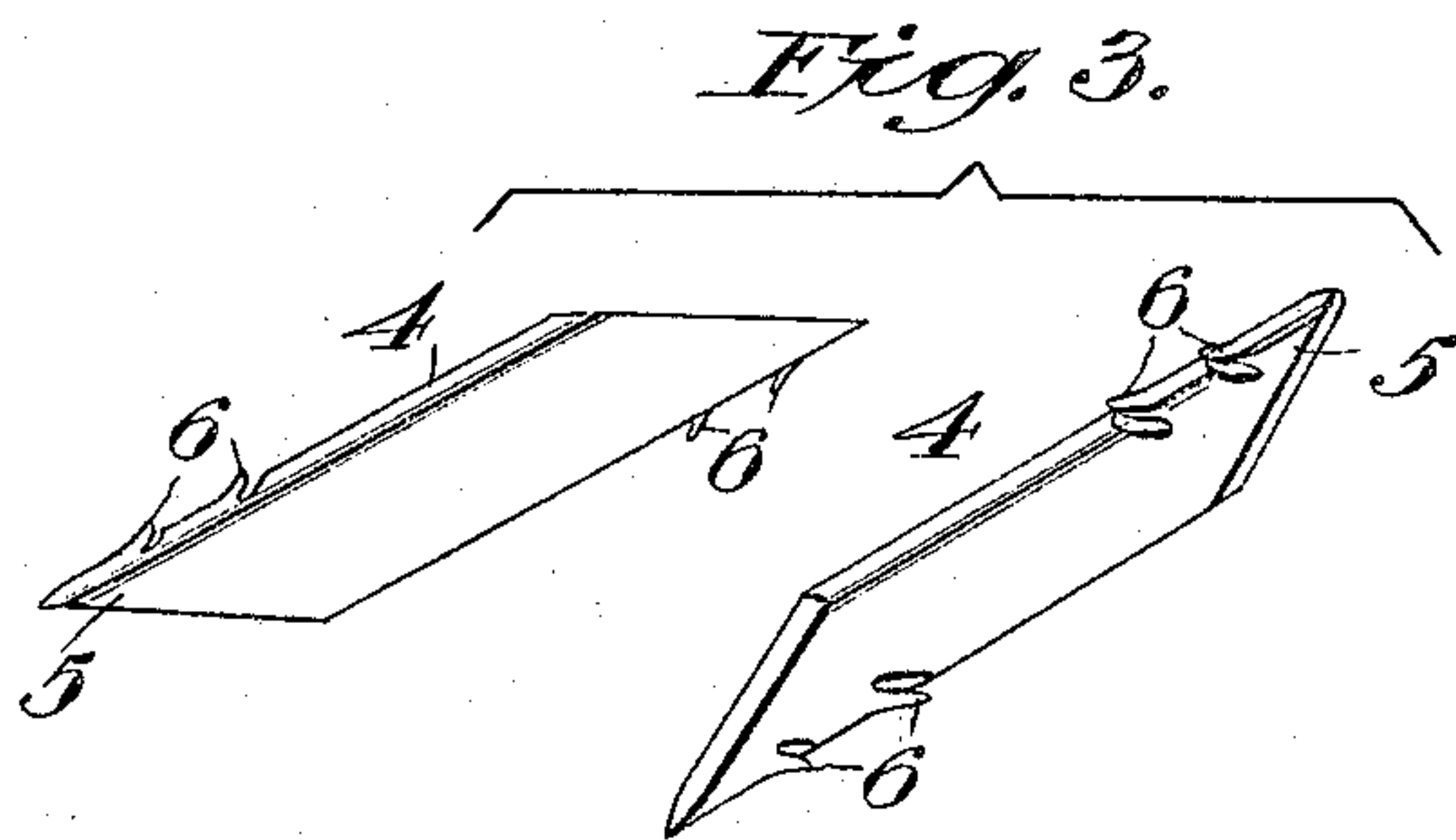
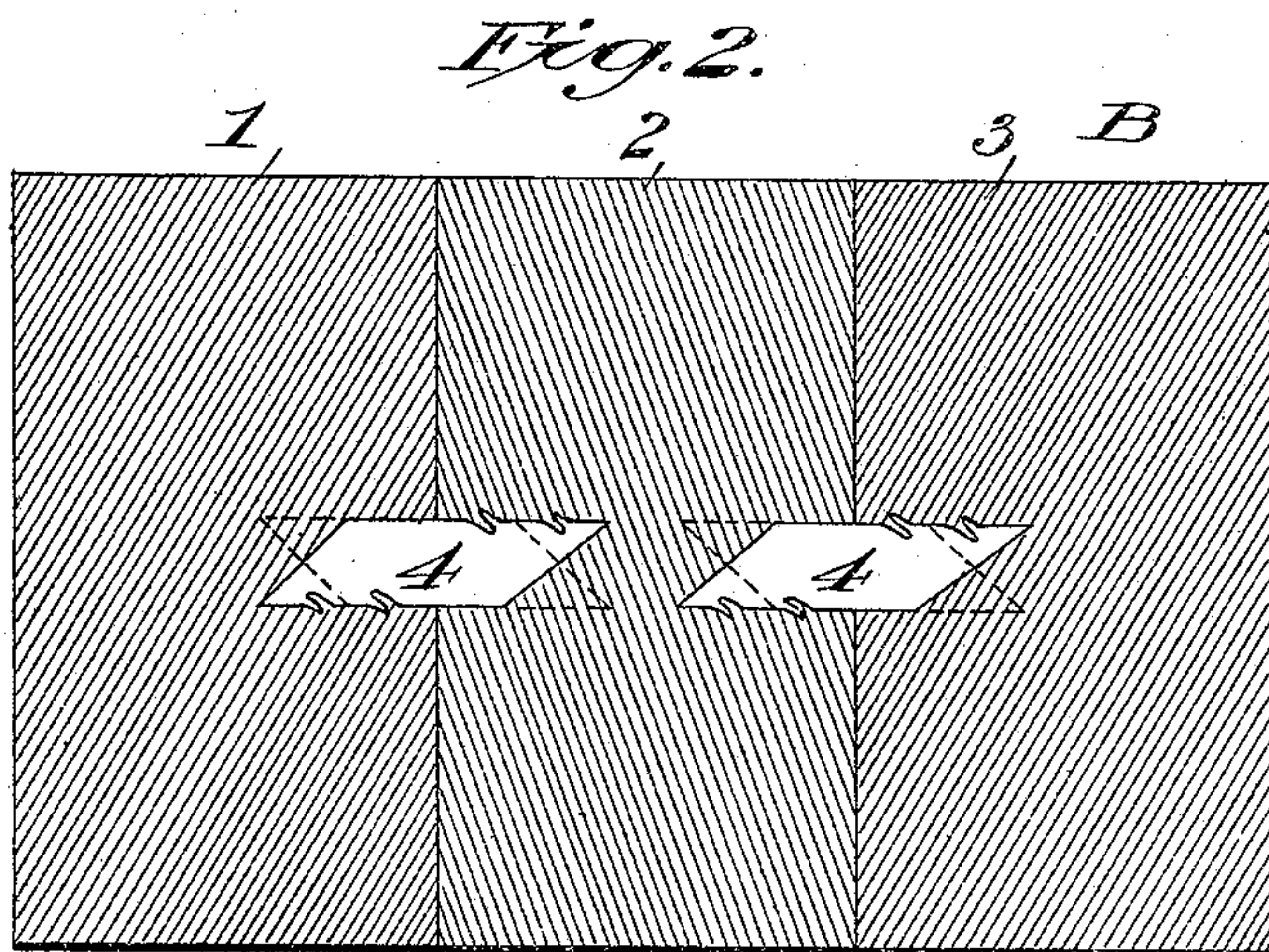
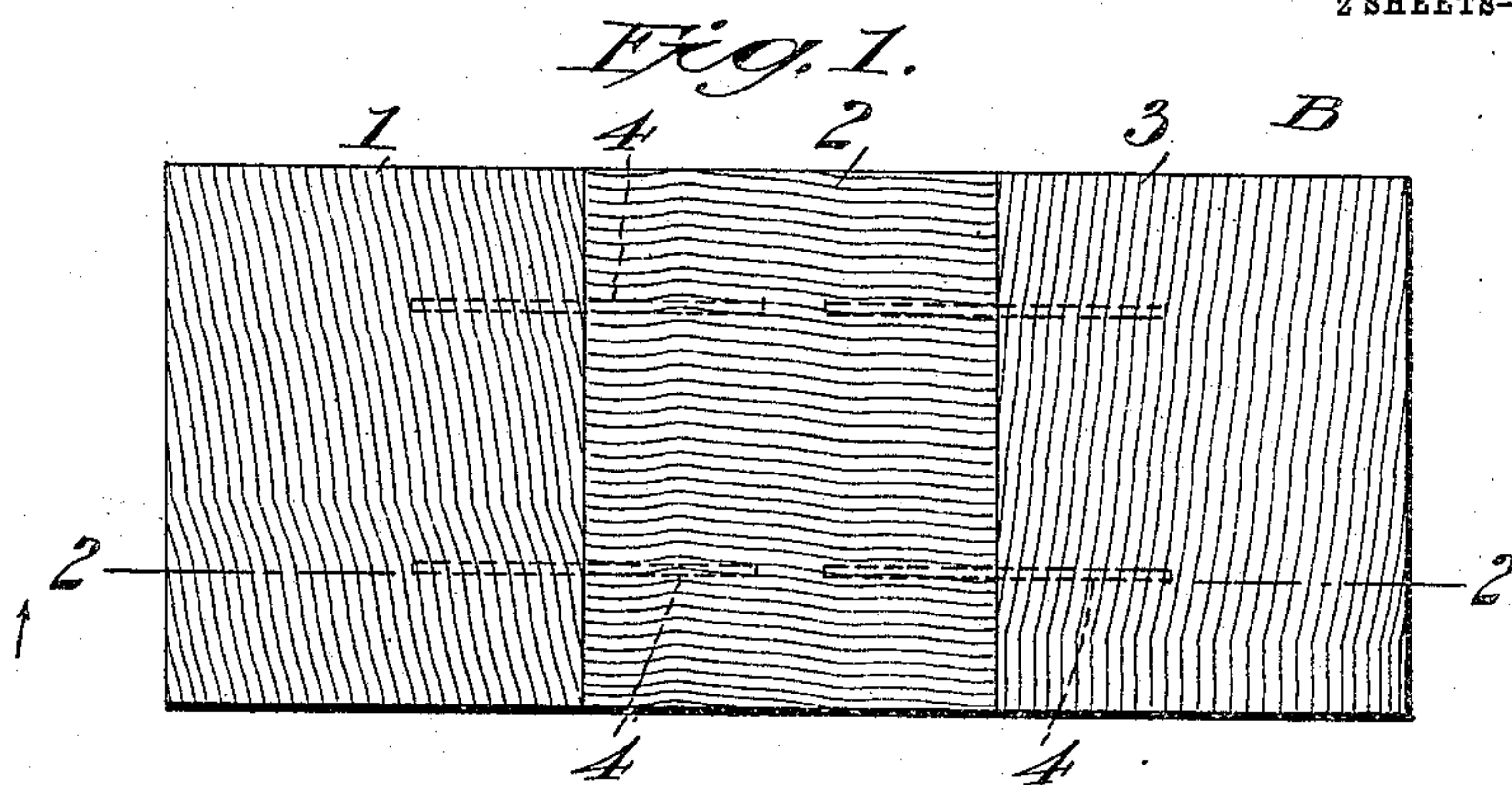


920,808.

Patented May 4, 1909.
2 SHEETS—SHEET 1.



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920,808.

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2 SHEETS—SHEET 2.

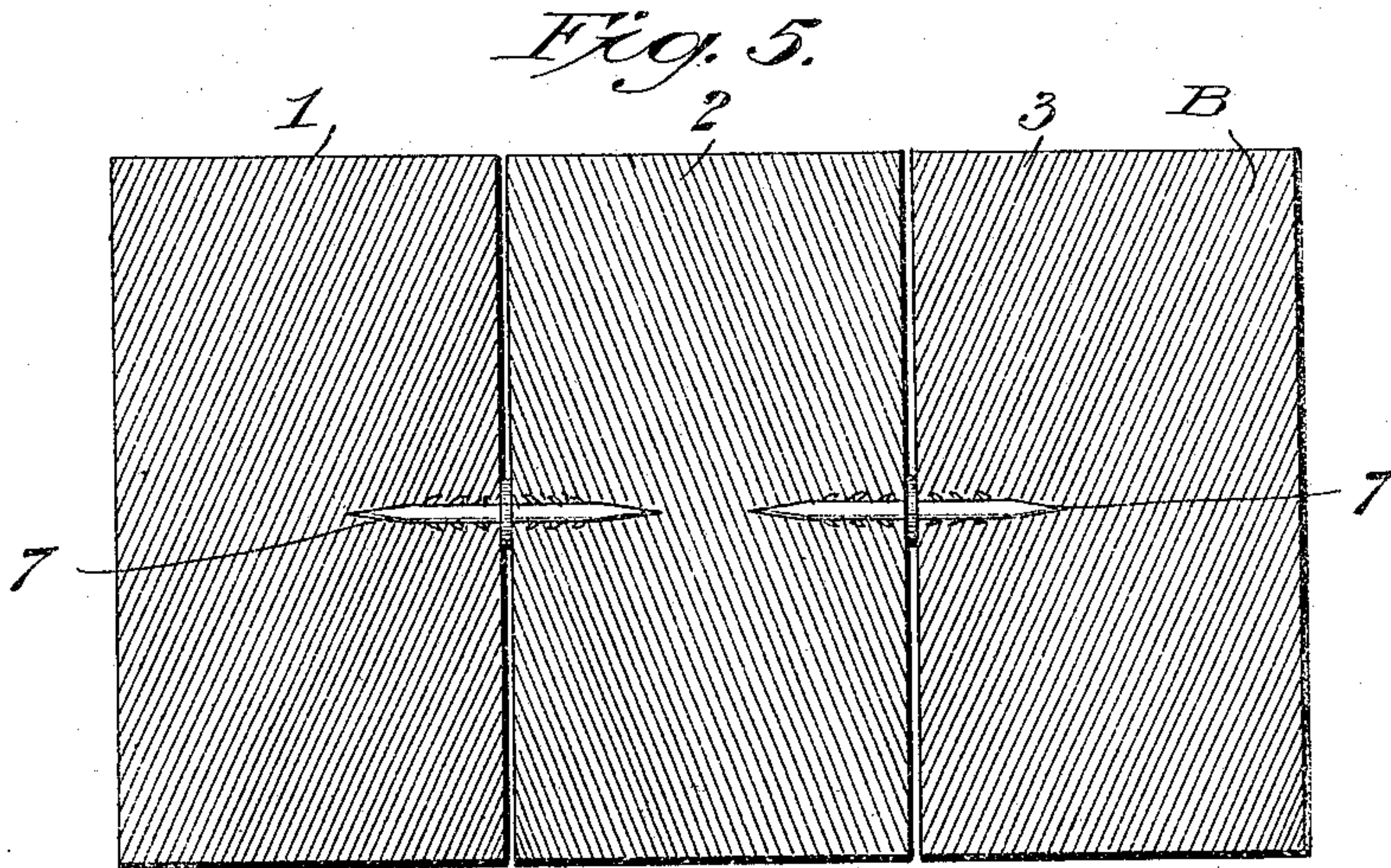
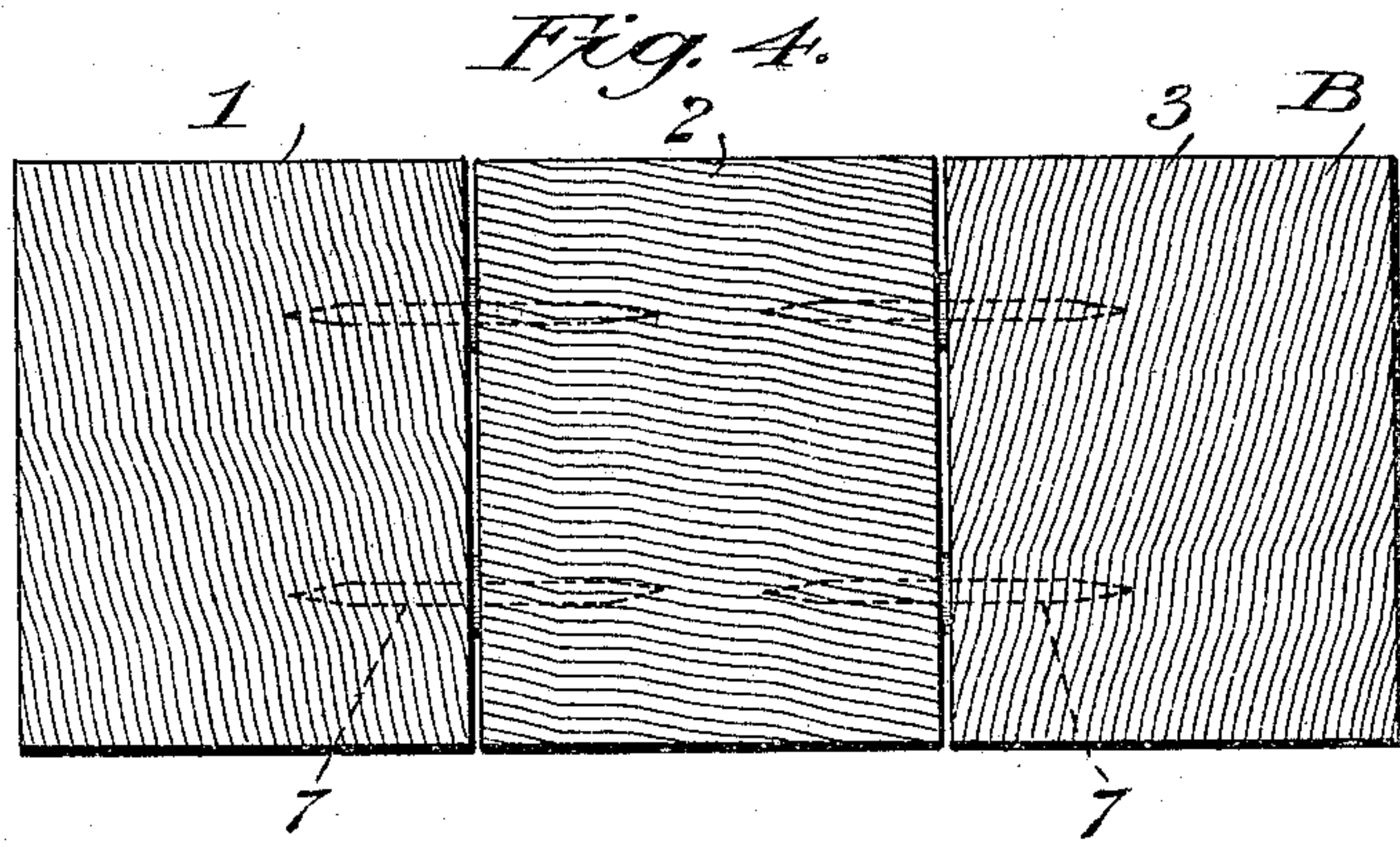
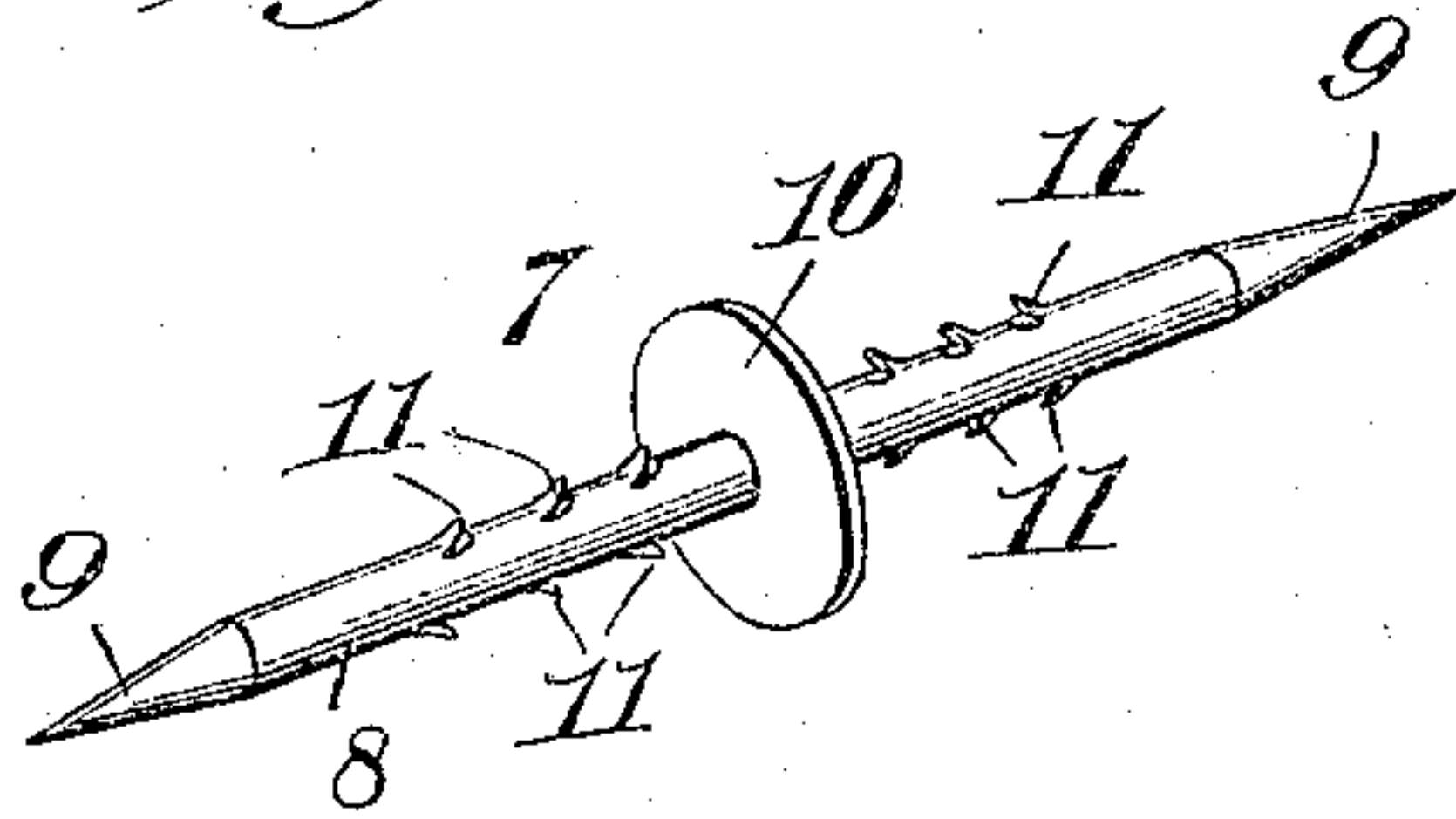


Fig. 6.



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UNITED STATES PATENT OFFICE.

EDWARD ALCOTT, OF PITTSBURG, PENNSYLVANIA.

PAVING-BLOCK.

No. 920,808.

Specification of Letters Patent.

Patented May 4, 1909.

Application filed December 28, 1908. Serial No. 469,666.

To all whom it may concern:

Be it known that I, EDWARD ALCOTT, a citizen of the United States, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Paving-Blocks, of which the following is a specification.

This invention relates to the subject of paving, and more particularly to that class of pavements which are constructed of individual wooden paving blocks, which are set up in the usual way and the spaces between which are ordinarily filled with tar or like binding and filling material.

To this end the invention contemplates a simple, practical, and thoroughly efficient sectional wooden paving block composed of a plurality of hard wood sections so arranged and bonded together as to provide an exceedingly durable construction of block as well as one presenting a most effective wearing surface, besides giving a secure foot hold for traffic purposes.

One of the distinctive and practical objects of the present invention is to provide a construction of sectional wooden paving block which may be made in a very simple and economical manner from pieces or sections of wood which are ordinarily regarded as waste products, such for instance as small sections or pieces of wood that ordinarily constitute the waste in saw mills. However, without regard to the source from which the wood sections or pieces of wood are obtained, the present invention has in view the improved feature of arranging the block sections in such a manner with relation to each other as to provide a wearing surface of great resisting and wearing qualities. This is preferably accomplished in carrying out the invention by employing for each paving block a plurality of wooden sections having differently running grains, which sections are so arranged as to present the grain on-end with the differently running grains of the separate sections in opposition. For instance, one or more sections of the block may present the grain running transversely of the end of the block, and this is produced by the ordinary cross-grain sawing. That is also true of those sections of the block wherein the grain runs across the ends transversely but also more or less obliquely. Again, other sections of the block, wherein the grain of the wood runs in a direction longitudinally

of the end of the section, such sections are prepared by the operation of quarter sawing, or in other words, sawing with the grain of the wood. In this aspect, the improved sectional block claimed herein could not be formed from ordinary sections, pieces or slabs sawed out in the usual manner.

A further and general object of the invention is to preferably construct the block sections of white oak on account of the well known qualities of this material for non-decay, and durability. Furthermore, white oak has but little contraction and expansion, but in this connection, it will be understood that the invention contemplates constructing the block of any suitable hard wood sections sawed in the manner above indicated so that the blocks may be assembled in such a way not only to present the grain on-end at the wearing surface, but also to present the differently running grains of adjoining sections in opposition, thus providing a construction of block which wears absolutely even on account of the grain of the wood running in various directions, and also a block, which, on account of its many joints, is far less slippery than a solid or one piece block.

A further and very important object of the present invention is to provide novel and practical means for bonding or fastening together the several sections of the block, and also in such a manner as to facilitate the economical and rapid manufacture of the block.

With these and many other objects in view, which will more readily appear to those familiar with the art as the nature of the invention is better understood, the same consists in the novel construction, combination, and arrangement of parts hereinafter fully described, illustrated and claimed.

The essential features of the invention, involved in carrying out the objects above indicated are susceptible to structural modification without departing from the scope of the invention, but the practical embodiment thereof is suggested in the accompanying drawings, in which:

Figure 1 is a top plan view of a sectional wooden block embodying the present invention, and showing by dotted lines the preferable location and disposition of the bonding dogs. Fig. 2 is a longitudinal sectional view of the block on the line 2—2 of Fig. 1 and looking in the direction indicated by the ar-

rows. Fig. 3 is a perspective view of a pair of the bonding dogs, illustrating the reversed relation of these dogs as preferably employed in bonding or tying together adjoining sections of the block. Fig. 4 is a view similar to Fig. 1, but illustrating the employment of bonding dogs in the form of double pointed dowel nails. Fig. 5 is a vertical longitudinal sectional view on the line 5—5 of Fig. 4, the view exposing in elevation the double pointed dowel nails in operative position within the block sections united thereby. Fig. 6 is a detail in perspective of one of the dowel nails such as embodied in the construction shown in Figs. 4 and 5 of the drawings.

Like references designate corresponding parts in the several figures of the drawings.

In carrying the invention into effect, the improved sectional paving block may be made up of any desired or suitable number of sawed wooden sections, provided that these sections are so sawed and arranged as to present the grain on-end at the wearing surface, and also to present the differently running grains, of the separate sections, in opposition. For illustrative purposes, the paving block shown in the accompanying drawings is designated in its entirety by the reference letter B, and is composed of a plurality of sawed white oak or equivalent wooden sections 1, 2, and 3. These several wooden sections 1, 2, and 3, are individually of a rectangular formation and are designed to be assembled closely and solidly together to complete the solid rectangular block B, although in this connection, it should be understood that any variation from the rectangular form or design of the block may be resorted to without departing from the spirit of the present invention, the shape of the completed block necessarily depending upon the character and requirements of the wooden pavement which is to be constructed of such blocks.

For illustrative purposes, the block section 1 is shown as having the grain on-end and also running in a direction longitudinally of the end of the section. This is also true of the illustration of the block section 3, while for the intermediate block section 2, which is sandwiched between the end block sections 1 and 3, the grain of said section 2 is shown as being on-end and having a trend transverse of the end of the said section 2, thus placing the grains of the said sections 1, 2 and 3 in opposition when such sections are assembled.

To provide for rigidly and permanently tying and fastening together the several block sections 1, 2, and 3, the present invention contemplates the employment of bonding dogs, each of which preferably consists of a flat metallic tie plate 4 which is preferably of a rhomboidal form, thus providing said plate at opposite ends with V-shaped

penetrating points 5, and at one edge of each of said points, the plate is preferably notched and struck up to form a plurality of retaining barbs or spurs 6, the points of which are disposed backward from the tip of the points 5. Also, by reason of the rhomboidal form of the individual tie plates 4, the penetrating points 5 at the opposite ends thereof are disposed in diagonally opposite relation, and in utilizing these plates to bond together the wooden sections 1, 2, and 3, it is preferable to employ the same in pairs between the adjoining block sections, as indicated in all three figures of the drawings. Also, it is preferable, in using these bonding dogs, to have the separate dogs of each pair reversely arranged to each other with respect to the disposition of their penetrating points, as may be plainly seen from Figs. 2 and 3 of the drawings. This reverse arrangement of the elements of the bonding dogs of each pair, provides for a uniformity of fastening and reinforcement of the bonded sections which contribute materially to the rigidity and strength of the block structure.

In the manufacture of the block, a preferable method employed is to first arrange and support the bonding dogs in their proper relative positions and then through the medium of a press or equivalent machinery, to forcibly drive the block sections together and upon the bonding dogs with the result of causing said dogs to penetrate into the adjoining faces of the block sections, and into the body of the latter a distance to provide an exceedingly strong and practical bond or tie, and by reason of the disposition of the barbs 6, slipping of the dogs or of the block sections is absolutely and positively prevented.

Although a pair of the bonding dogs is shown as preferably connecting adjoining block sections, it will, of course, be understood that one or more of these dogs may be utilized as a bonding tie without departing from the spirit or scope of the invention. Furthermore, in this connection, it will be observed that the arrangement of the dogs is such as to have them entirely concealed and protected inside of the sectional block body, thus leaving no metal exposed.

While stress has been laid on the employment of bonding dogs consisting of flat metallic tie plates of a general rhomboidal type, it will be understood that the essential features of the invention may be preserved and successively carried out by utilizing bonding dogs of different designs though employed in the same manner and in the same relation for bonding together adjoining sections of the block. For instance, a very practical form of bonding dog that may be employed, for the purpose herein indicated is shown in Figs. 4, 5 and 6 of the drawings, and referring particularly to the latter figure

of the drawings, it will be observed that the modified bonding dog referred to may be said to consist of a double pointed dowel nail designated in its entirety by the reference number 7. The dowel nail 7 may be conveniently manufactured in the manner similar to the ordinary wire nails of commerce, but irrespective of the manner of producing such nail the same embodies in its construction the opposite straight shank portions 8 each of which is provided with a pointed tip 9 forming a penetrating point, and at a point intermediate the extremities 9 of the nail body, the latter has formed therewith or otherwise rigidly united thereto a single bearing head 10. The single bearing head 10 of the individual dowel nail 7 serves the important dual function of an abutment or a head for compelling the equal penetration of the opposite portions or shanks of the nail into adjoining block sections, while at the same time acting as a spacing washer for maintaining a well defined space between the connected block sections for receiving pitch, concrete or other filling material that may be utilized in surfacing the pavement, and which material therefore contributes in a substantial manner securely and effectively bonding together the individual sections of the block.

A further feature in the construction of the dowel nails 7 resides in notching or otherwise striking from the opposite shank portions 8 of the nail a plurality of retaining barbs or spurs 11, the points of which are disposed diagonally from the penetrating points 9, as plainly shown in Figs. 5 and 6 of the drawings. The function of these barbs 11 is the same as for the barbs 6 hereinbefore described.

It is proposed to utilize the dowel nails 7 in the same way and in the same relation as the bonding dogs 4 hereinbefore fully described.

In utilizing bonding dogs of the nail type 7 it will be understood that use may also be

made of the well known features of having these nails preliminarily covered with cement or like material so that when driven into the wood a more effective cementing of the same in position is obtained.

It will also be understood that other forms or designs of bonding dogs may be employed without departing from the invention, consequently changes in the form, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

I claim:

1. A paving block composed of a plurality of wooden sections having differently running grains presented on-end at the wearing surface, said several block sections being also arranged to present their differently running grains in opposition, and interior bonding ties penetrating and connecting adjoining block sections.

2. A paving block consisting of a plurality of wooden sections, and bonding dogs connecting adjoining block sections, each bonding dog comprising a flat metallic tie plate provided with diagonally opposite V-shaped penetrating points and back-turned retaining barbs at one edge of each of said penetrating points.

3. A paving block comprising a plurality of assembled wooden sections, and a pair of bonding dogs penetrating and connecting adjoining sections, the individual bonding dogs being provided with terminal diagonally opposite penetrating points, and the dogs of each pair being reversed to each other without respect to the disposition of their penetrating points.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

EDWARD ALCOTT.

Witnesses:

S. J. WAINWRIGHT, Jr.,
LEO M. DILLON.

Record, 398,062, 2/19/89 (94-Mod)

Re. pat. 8796, 7/1890

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