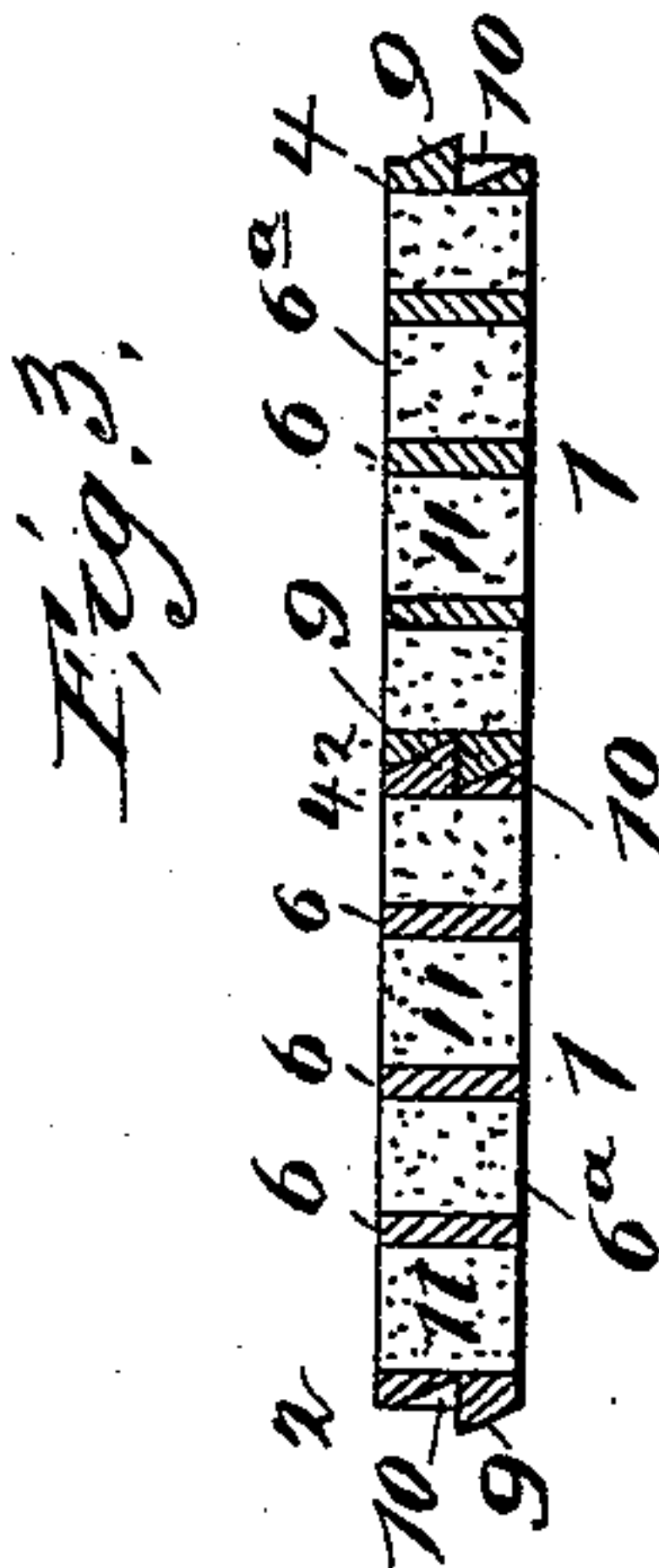
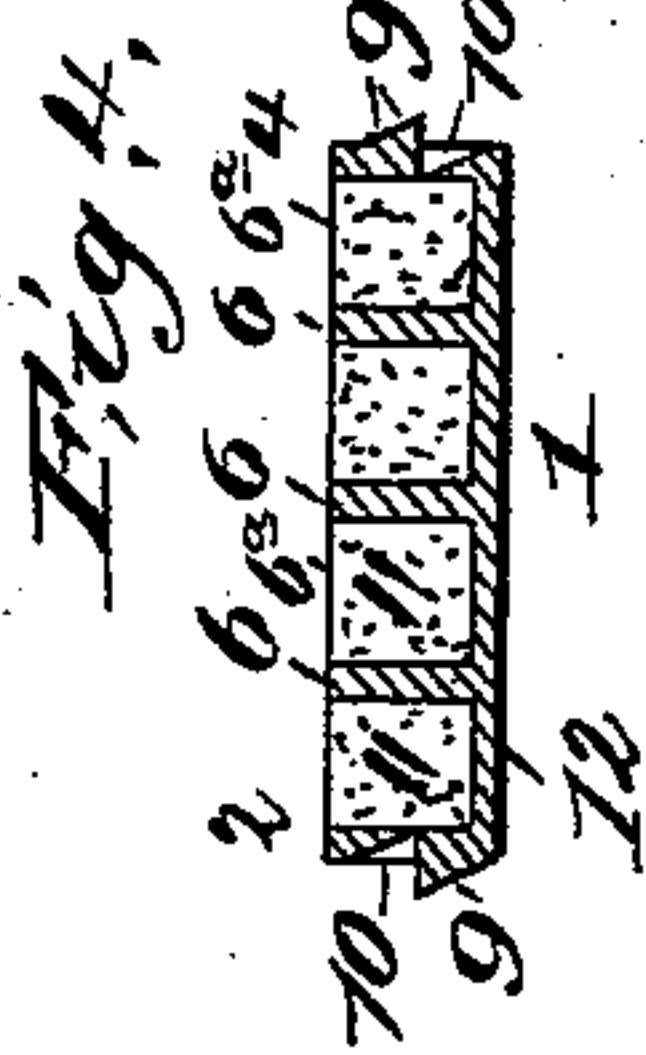
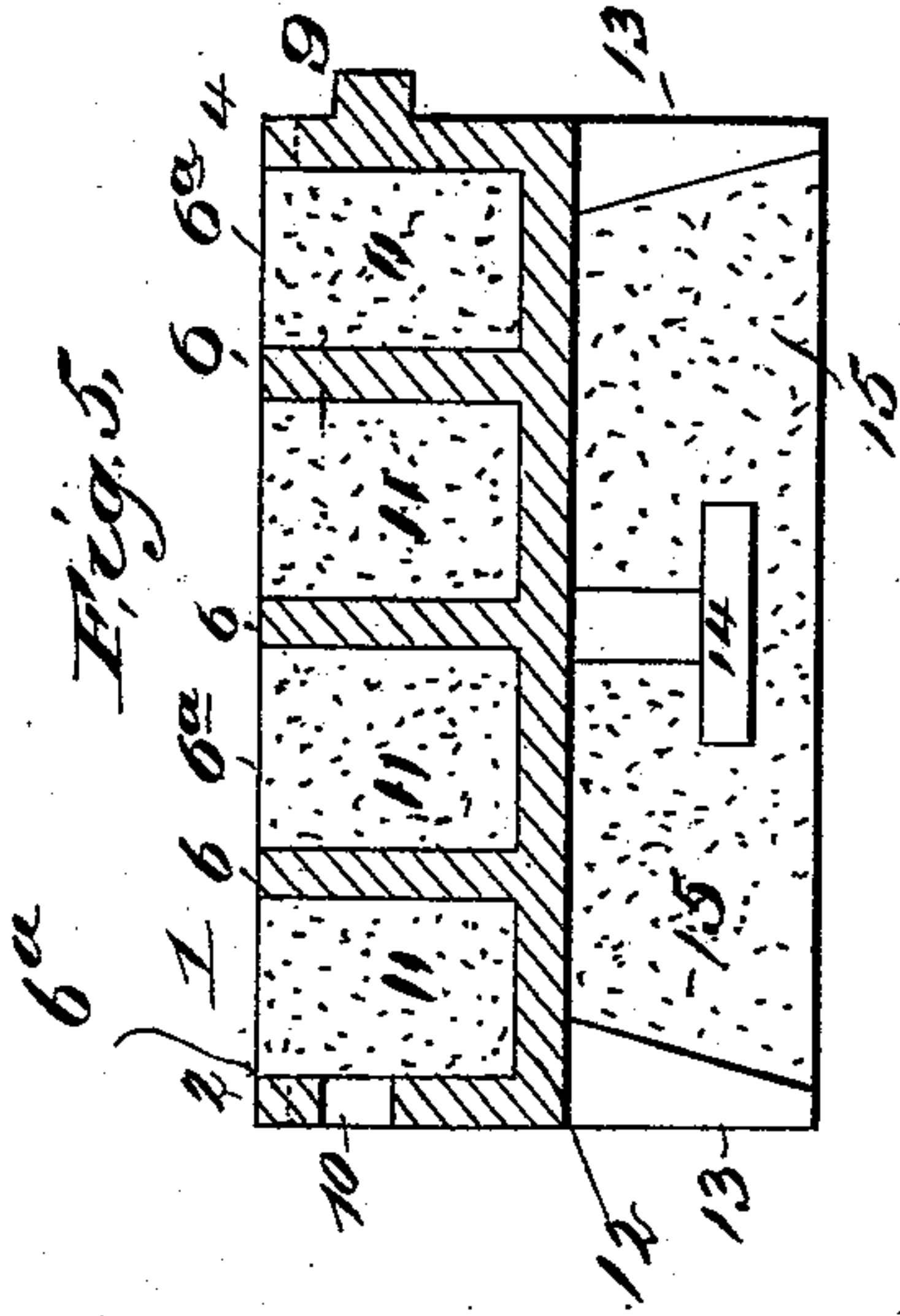
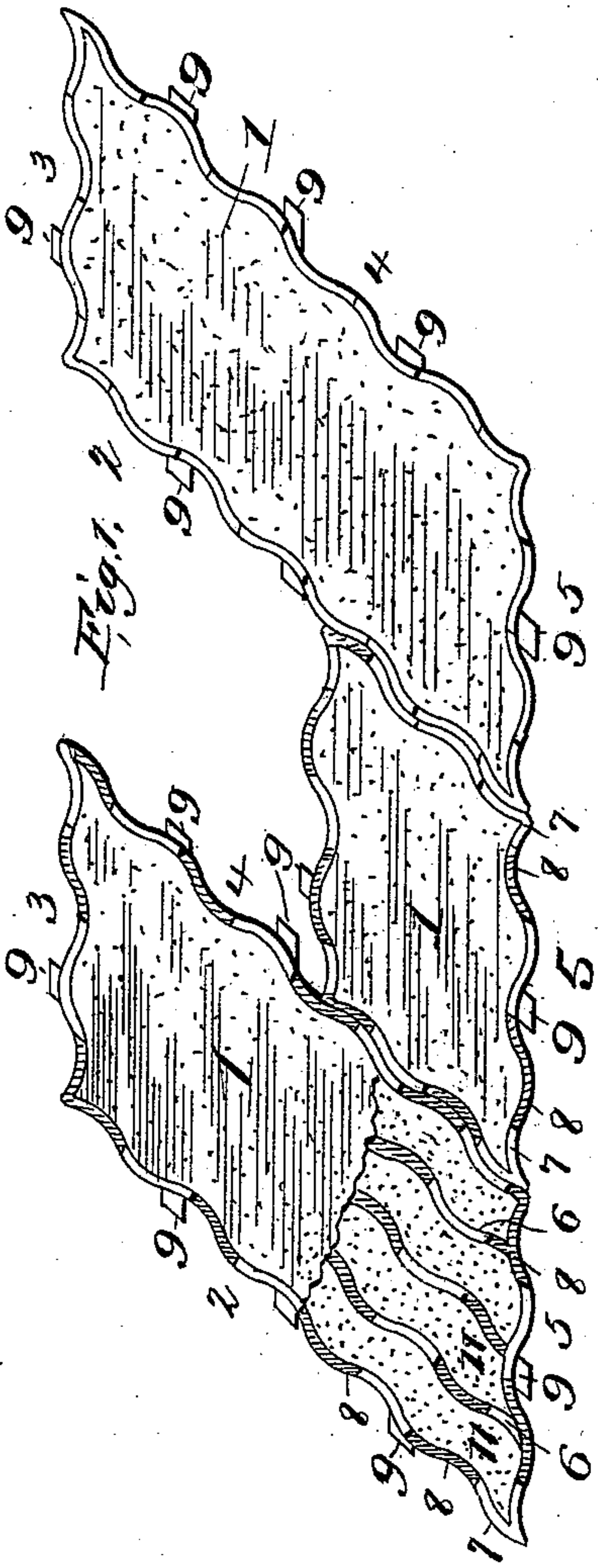
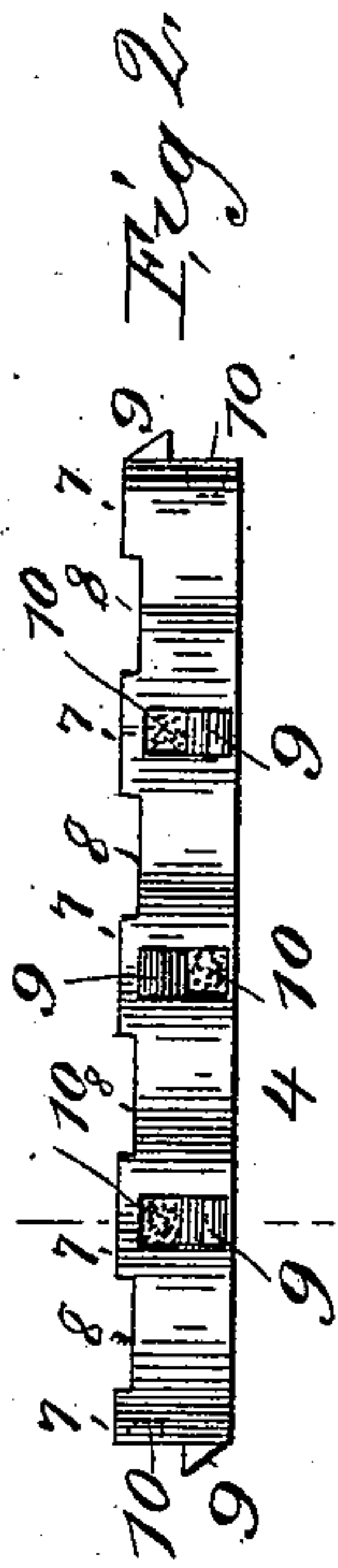


(No Model.)

R. J. CARSON.
PAVEMENT.

No. 539,572.

Patented May 21, 1895.



WITNESSES:

C. W. Benjamin
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INVENTOR

INVENTOR
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BY

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his ATTORNEY

UNITED STATES PATENT OFFICE.

ROBERT J. CARSON, OF NEW YORK, ASSIGNOR TO WM. DE L. BENEDICT, OF
BROOKLYN, NEW YORK.

PAVEMENT.

SPECIFICATION forming part of Letters Patent No. 539,572, dated May 21, 1895.

Application filed August 6, 1894. Serial No. 519,534. (No model.)

To all whom it may concern:

Be it known that I, ROBERT J. CARSON, a citizen of the United States, and a resident of New York city, county and State of New York, have invented certain new and useful Improvements in Pavements, of which the following is a specification.

The object of my invention is to provide a smooth, durable pavement that will be practically noiseless, and which will withstand the pressure of heavy traffic.

The invention consists in a pavement composed of metallic sections having openings that are filled with paving material such as asphalt or concrete.

The invention also consists in sections, that may be placed side by side, on a suitable bed or foundation, which sections are composed of corrugated walls having openings that are filled with asphalt or concrete.

The invention also consists in pavement sections having walls or openings, said walls having ribs or lugs upon which wheels may bear, which openings may be filled with suitable paving material to provide a smooth surface.

The invention further consists in pavement sections to be laid side by side and having corresponding recesses and projections on their sides or edges, adapted to interlock, to hold the sections securely in position.

The invention further consists in the novel details of improvement and the combinations of parts that will be more fully hereinafter set forth and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming part hereof, wherein—

Figure 1 is a plan view of a portion of my pavement complete, showing a portion of the filling removed. Fig. 2 is an edge view of one of the sections. Fig. 3 is a cross-section through two of the pavement-sections, showing interlocking devices on their edges. Fig. 4 is a cross-section of one of the pavement-sections having a bottom plate, and Fig. 5 is an enlarged cross-section of one of the pavement-sections having depending legs and an anchor for holding concrete or the like.

In the accompanying drawings, in which similar numerals of reference indicate corresponding parts in the several views, the numeral 1 indicates a section, a number of which, when placed side by side, form the pavement for a street or roadway. These sections are composed of external walls, 2, 3, 4 and 5, which preferably extend at an angle of forty-five degrees to each other, forming an oblique structure, or at any other desired angle.

Within the outer walls 2, 3, 4 and 5 of the pavement sections are one or more walls or ribs 6, extending substantially parallel with either of the side walls of the section, and secured to the end walls thereof, as shown, said walls forming or surrounding openings 6^a, as shown.

The walls 2, 3, 4, 5 and 6 are all preferably corrugated, curved or otherwise made irregular, as shown, so that the outer wall on one section will match or fit against the corresponding wall of the contiguous section, as shown.

On the upper edges of some or all of the walls or ribs of the sections 1 are upwardly extending ribs or lugs 7, forming depressions 8, as clearly shown in Fig. 2. These ribs alternate in position, with reference to the curb line, so that a wheel will at all times bear upon, or be over, one or more of them.

In order to compactly hold the sections 1 together and prevent one from sinking below the other, I provide the outer sides of the walls 2, 3, 4 and 5 of the sections with corresponding projections or recesses, or tongues and grooves, which fit into each other, as shown. These projections or recesses are shown at 9, 10, and they may be of any suitable or desired construction and arrangement. In the drawings projections are shown located above and below a recess, they being arranged in pairs, so that when placed together the sections will be locked from up and down movement.

In Fig. 5 the projection 9 and recess 10 are in the form of a tongue and groove.

The openings 6^a in the pavement section 1 are to be filled with any suitable pavement material 11, such as asphalt or concrete, and by the words "asphalt" or "concrete" I wish it understood that I mean any suitable paving material that can be used to fill in the openings 6^a of the sections.

The asphalt or concrete filling may be

placed in the pavement sections 1 at the factory, thereby forming completed blocks which can be transported to the place of use ready for laying; or the sections can be laid on the roadbed or foundation first and then the asphalt or concrete filling 11 can be placed in the openings 6^a. In all cases I prefer to have the asphalt or concrete 11 rise flush with or above the lugs 7 on the walls. After the pavement sections are properly laid on the roadbed or foundation I preferably place a layer of asphalt or concrete entirely over them in the form of a sheet or layer, of suitable thickness, and roll it down, to cover all the metallic parts of the pavement.

In Fig. 4 I have shown the section 1 as provided with a bottom plate 12, upon which the filling 11 can rest, which forms a solid base for the latter, as well as a smooth surface to rest on the prepared surface or foundation.

In Fig. 5 I have shown the pavement section 1 as provided with depending legs 13, preferably at the corners. These legs afford supports for the sections, as well as providing additional means for holding concrete 15, which may be filled in between the legs and beneath the under surface of the sections 1, and allowed to harden before they are placed on the roadbed, thus securing a foundation for the sections. Thus complete paving blocks are provided ready for use. An anchor 14 may be attached to the sections to assist in retaining the concrete 15 centrally of the section.

The sections are preferably made in a single piece of metal, steel being preferably used, and they are preferably cast, so that they will be strong and rigid as well as cheap.

The sections 1 may be made in different sizes so as to properly fit together when being laid.

In laying my improved pavement the roadbed is first prepared in any desired manner, and then the sections are laid upon it, commencing at the curb, or at a car rail, and the sections are so placed that they will break joints as shown in Fig. 1. This brings the lugs 7 in various relations. The sections as they are laid are locked together by the pro-

jections and recesses 9, 10 (when the latter are used, as the sections need not necessarily have side locking means). If the filling 11 has been previously placed in the openings 6^a the top layer is then placed on the sections and rolled down. If the sections have not been filled the material is placed upon them and rolled down hard and firm in the openings 6^a.

My pavement will be found very hard and firm, as the wheels will find a metallic base interwoven with the asphalt or concrete, which acts to deaden sounds from the contact of metals. When the top layer is worn down the wheels will rest or run on the lugs 7 which prevent the wheels from sinking into the asphalt or concrete, and the lugs also afford a foothold for horses to prevent them from slipping. Thus the durability of an asphalt or concrete pavement is increased, and depressions in the street or road surface are prevented, as the metallic sections remain level. Should the foundation sink beneath a section 1, the latter will be sustained by the contiguous sections, through the medium of the side locking devices.

Having now described my invention, what I claim is—

1. A pavement composed of metal sections having oblique or inclined outer sides, interior walls having openings between them, and studs on the upper edges of said walls, said sections being laid so that they extend obliquely to the curb line, said openings being filled with paving material, substantially as described.

2. A pavement section having oblique or inclined outer sides, an interior wall and openings between said sides and wall, and studs on the upper edges of said sides and wall, substantially as described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 10th day of May, 1894.

ROBT. J. CARSON.

Witnesses:

THEODORE BOURNE,
T. F. BOURNE.