M. E. DUNN.

PAVEMENT.

APPLICATION FILED OCT. 26, 1908.

978,994. Patented Dec. 20, 1910.

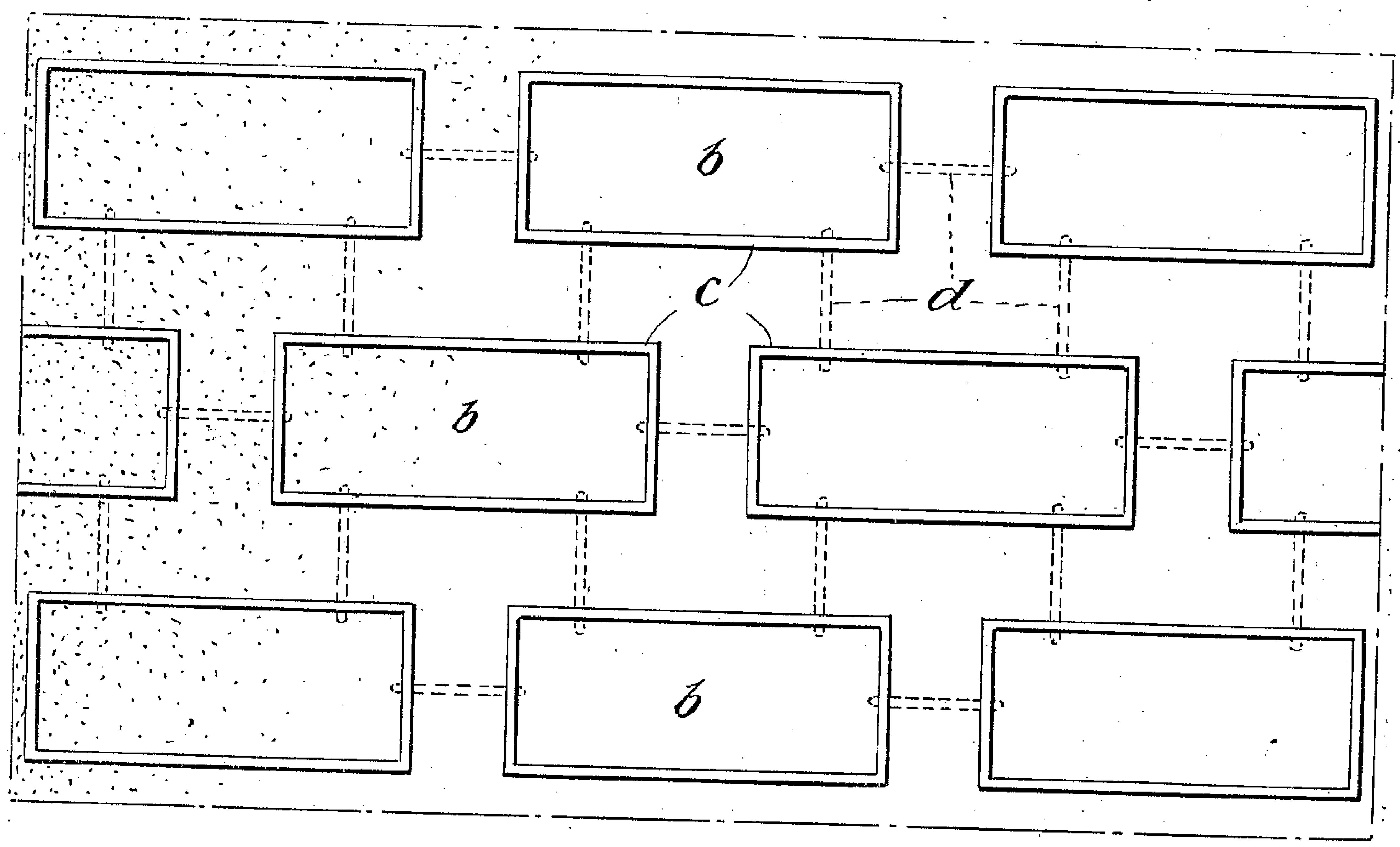

Fig. 1.

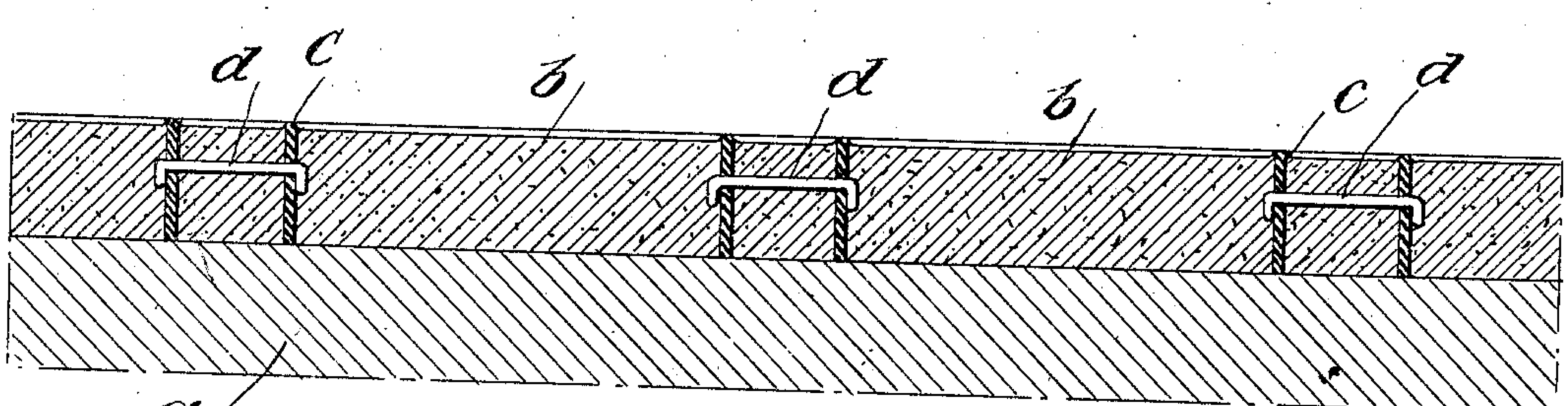

Fig. 2.

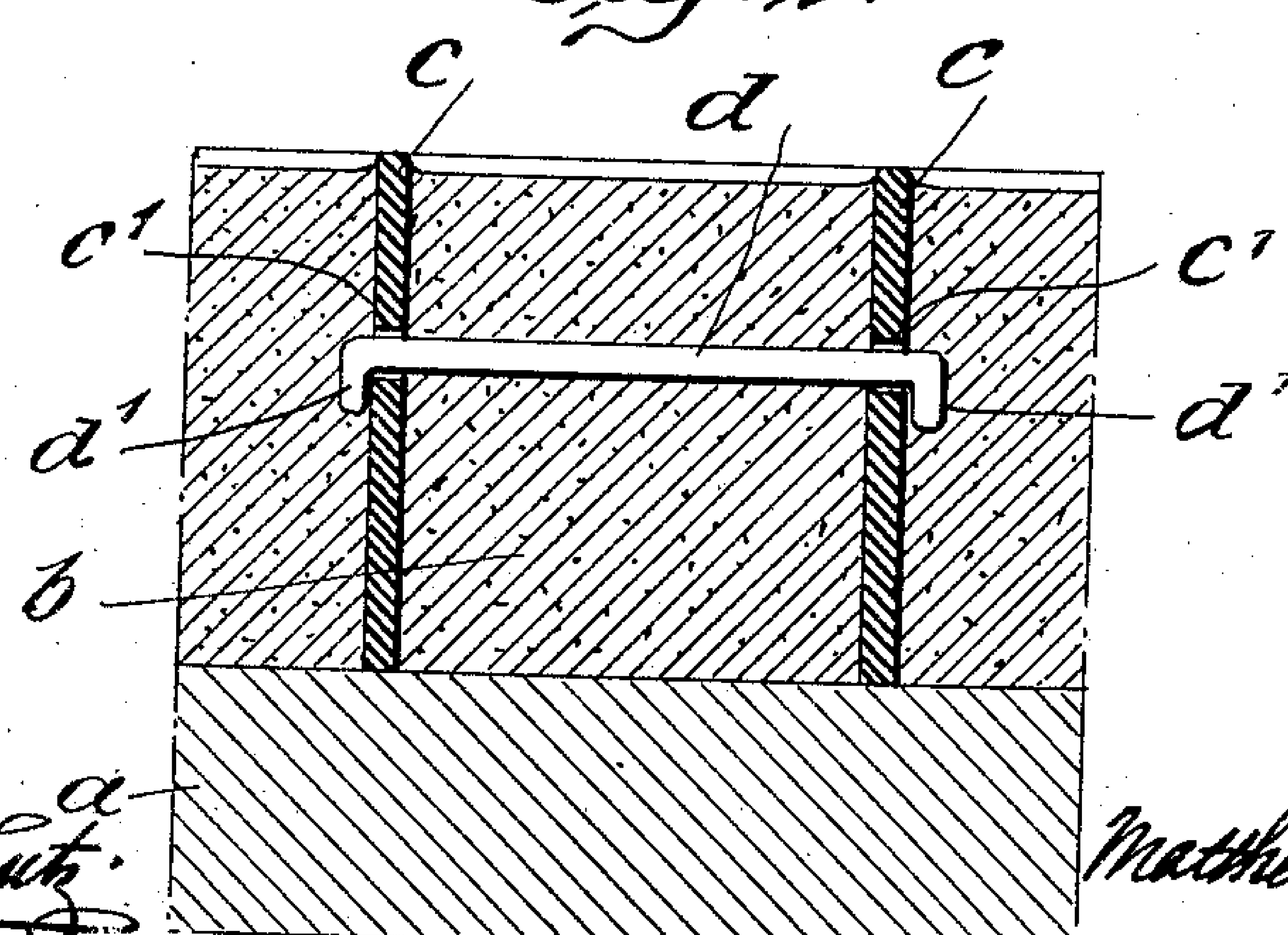

Fig. 3.

WITNESSES

Julius H. Kuntz.

Adalbert Spitzweg

INVENTOR

Matthew E. Dunn

BY

Isaac B. Owens

ATTORNEY

UNITED STATES PATENT OFFICE.

MATTHEW E. DUNN, OF NEW YORK, N. Y.

PAVEMENT.

978,994. Specification of Letters Patent. Patented Dec. 20, 1910.

Application filed October 26, 1903. Serial No. 459,522

To all whom it may concern:

Be it known that I, MATTHEW E. DUNN, of the city, county, and State of New York, have invented certain new and useful Improvements in Pavements, of which the following is a full, clear, and exact specification, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to a pavement useful on streets and roadways of all sorts but particularly intended to be laid on streets over which there is heavy trucking traffic, and the object of the invention is primarily to provide an indestructible pavement capable of sustaining the heaviest loads and affording a secure foothold for horses and a good traction surface for motor driven vehicles.

I attain this end by certain novel features which will be fully set forth hereinafter and particularly pointed out in the claims.

The accompanying drawings represent, as an example, one of the various forms into which the principles of my invention may be practically embodied and in these drawings, Figure 1 is a plan view of the pavement; Fig. 2 is a vertical section thereof; and Fig. 3 is an enlarged vertical section clearly illustrating the manner of tying together the reinforce sections.

In constructing the pavement a suitable bed or foundation is laid as indicated at *a* in Figs. 2 and 3. The nature of this foundation or bed is entirely immaterial excepting that it should be sufficiently strong to carry the weight of the pavement and its superimposed load.

The pavement is constructed of a suitable paving material laid plastic and allowed to harden and reinforced with iron. The pavement material employed for this purpose may be varied to suit the conditions to be met. For heavy traffic, however, I prefer to employ ordinary concrete. In the drawings *b* indicates the concrete or other paving material which is laid plastic and allowed to harden in the usual manner.

c indicates the reinforce sections which are entirely separate from each other and formed preferably of rough cast iron or other metallic material and, according to the form of the invention illustrated, in the drawings, these sections are rectangular in shape and rest on edge on the foundation or bed *a*, the upper edges of the sections *c* being exposed above the surface of the paving material *b* to furnish a foothold for horses and an effective traction surface for motor driven vehicles. I am not limited, however, to the shape of the reinforce sections which may be in various forms. These reinforce sections *c* are fastened together so as to form a continuous skeleton or net-like frame or reinforce. The sections may be secured together by various devices but I prefer the ties *d* shown best in Fig. 3. Said ties have laterally bent ends *d'* forming hooks which are introduced through openings *c'* in the reinforce sections *c* and after the concrete or other paving material hardens around them they form a firm rigid connection between the reinforce sections.

The pavement thus constructed is of the most durable character. The concrete or other paving material cannot crack because it is divided into numerous small bodies by the reinforce sections and should any one of these bodies become injured at any time it may be readily broken out independently of the remainder of the pavement and a new section laid in its place. If a section of the pavement is to be taken up for repair or for sewers under the street this may be readily done by removing as many of the reinforce sections *c* and connections *d* as may be required and after the necessary work is completed the section of the pavement removed may be relaid and will match perfectly both in appearance and structure with the remainder of the pavement.

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

1. A continuous street pavement having a foundation, a number of metallic reinforce sections placed on edge on the foundation and spaced from each other, said reinforce sections having openings in the walls thereof, metallic ties extending between the adjacent walls of adjacent reinforce sections and provided at their ends with heads, said ends projecting through said openings and said heads being adapted to contact with the inner surfaces of said sections to prevent separation thereof and being removable through said openings, thereby joining the reinforce sections together and permitting any one of them to be removed without disturbing the others, and a sheet of paving material laid on the foundation and between the reinforce sections.

2. A continuous street pavement having a foundation, a number of metallic reinforce sections placed side-by-side, but spaced from each other and placed on edge on the foundation, said reinforce sections having openings therein, short, rigid, one-piece metallic ties extending between the adjacent walls of adjacent reinforce sections and having their ends bent to form hooks, said ends projecting through the openings in the reinforce sections and the hooks engaging the inner surfaces of the sections and being removable through said openings, leaving the interiors of the reinforce sections unobstructed, thereby joining the reinforce sections together and permitting any one of them to be removed without disturbing the others, and a sheet of paving material laid on the foundation and between the reinforce sections, the upper surface of such paving material lying in a plane adjacent to the upper edges of the reinforce sections.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

MATTHEW E. DUNN.

Witnesses:
ISAAC B. OWENS,
C. J. HORTEN.