

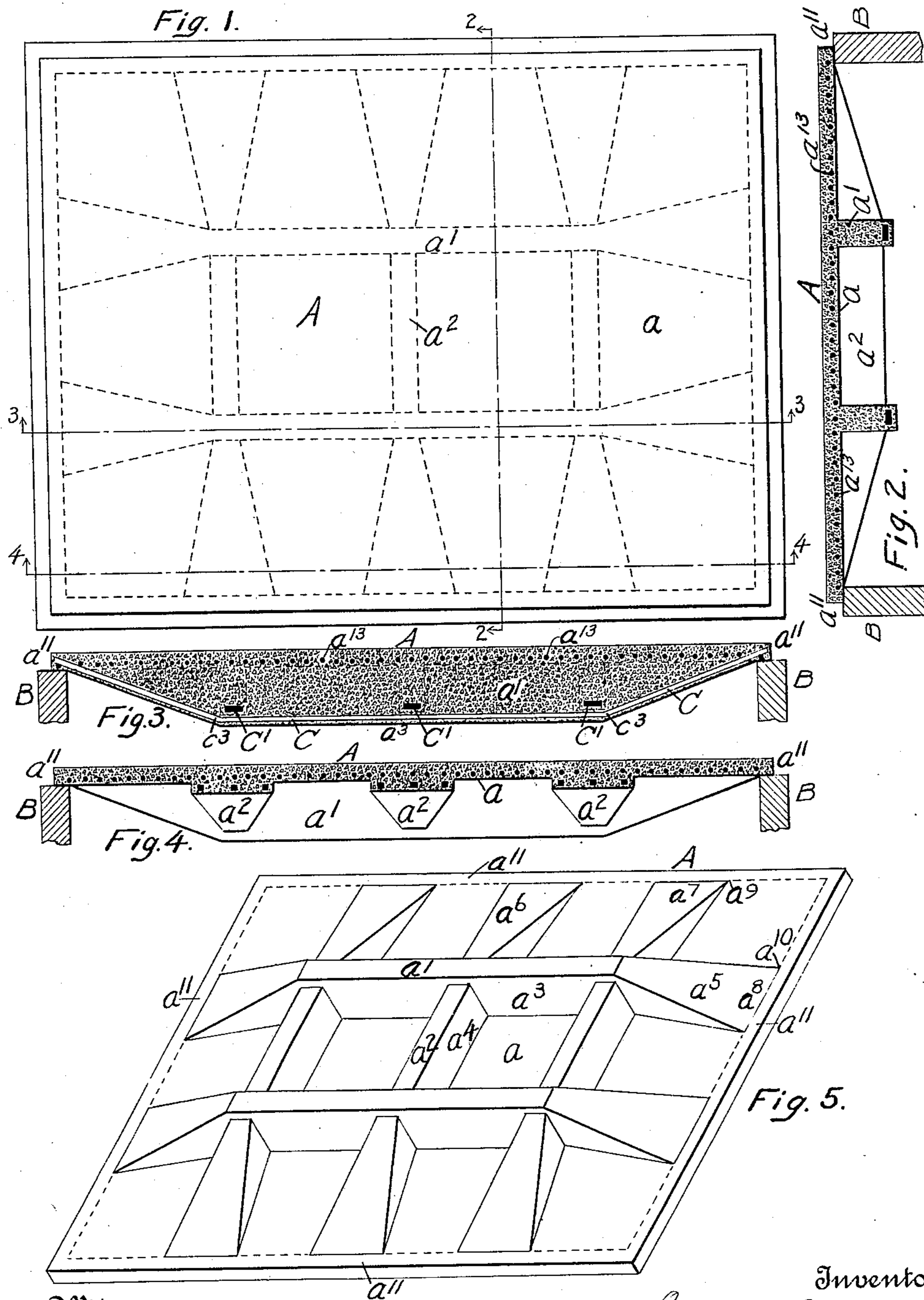
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G. P. WOOD.

SUPPORT MADE OF PLASTIC OR CEMENTITIOUS MATERIAL.

APPLICATION FILED MAY 2, 1905.



Witnesses

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SUPPORT MADE OF PLASTIC OR CEMENTITIOUS MATERIAL.

No. 863,821.

Specification of Letters Patent.

Patented Aug. 20, 1907.

Application filed May 2, 1905. Serial No. 258,496.

To all whom it may concern:

Be it known that I, GEORGE P. WOOD, a citizen of the United States, residing at Washington, District of Columbia, have invented new and useful Improvements in Supports Made of Plastic or Cementitious Material, of which the following is a specification.

This invention relates to a new and useful improvement in supports made of plastic or cementitious material, such as concrete wherein the support is made more efficient for resisting pressure by means of rods or other metal reinforcement embedded therein.

The object of the present invention is to produce a support which shall maintain a constant resilient resistance to any pressure or force applied thereto preventing deflection or breaking of the material.

The invention consists in the construction hereinafter pointed out.

The drawings illustrate and the specification describes a variety of structures all displaying the invention in varied forms and with varied application.

In these drawings: Sheet I. Figure 1 represents a plan view of a floor or similar construction containing the invention. Fig. 2, a vertical section on line 2—2, Fig. 1. Fig. 3, a vertical section on line 3—3, Fig. 1. Fig. 4, a vertical section on line 4—4, Fig. 1. Fig. 5, an inverted isometrical projection of the floor, Fig. 1.

In these drawings: The letter A indicates a support shown on Sheet I as a floor. This floor or support consists of the main flat portion, *a*, and the projections or ribs, *a*¹ *a*², arranged substantially at right angles as shown. These ribs have the middle or main portions, *a*³ *a*⁴, substantially symmetrical or rectangular in cross section. The ends, *a*⁵ *a*⁶, diverge laterally, having the flaring extremities, *a*⁷ *a*⁸, and diminishing in thickness, running out at *a*⁹ *a*¹⁰, before reaching the edge, there being a rim, *a*¹¹, all around the support beyond the ends of the projections or ribs. One set of ribs, as *a*², may be of less depth than the other set, *a*¹. The support or floor, *a*, and the ribs, *a*¹ *a*², are made in one piece or homogeneous, being made of concrete molded in any known way. The rim or edges, *a*¹¹, of this support or floor is to rest upon suitable bearings or walls, B, this being generally a distinguishing feature of the present invention.

As the homogeneous support and projections are formed there are generally placed in the mold suitable rods, plates or other forms of metal reinforcement. Reinforcement, such, for example, as the one C, is placed in the mold for each projection or rib, *a*¹ *a*², the

metal being bent up, as at *c*³, so as to conform to the configuration of the projections or ribs the ends of the reinforcements extending into the rim or edges *a*. The sets of reinforcement, C C¹, cross each other as indicated in Fig. 3. The main portion, *a*, of the floor is shown provided with rods, *a*¹³. The use of metal reinforcement in the main portion, *a*, does not necessarily differ from usual construction, and same may not contain metal reinforcement, but for economy it will be found generally desirable to have this metal reinforcement used in two directions or at right angles to each set of parallel ribs in this instance.

After the concrete is molded and set about the metal reinforcement there is produced the support or floor shown in Sheet I of the drawings. This consists of the homogeneous main portion, *a*, and projections or ribs, *a*¹ *a*², the latter containing within them the metal reinforcement. If desired, this support may be used inverted for the support of walls, etc., at the edges, the projections or ribs being on top, admitting of use to support columns for carrying a superstructure where the earth is soft and unstable.

The invention described produces a construction wherein the main support is resiliently braced by the projections or ribs so as to resist thrust or strain. The projections being homogeneous with the main portions, any pressure is transferred from one part to another and is resisted not only by the concrete, but also by the embedded reinforcement where the latter are used. The projections or ribs having a trussed construction bear up against any strain thereon and the metal reinforcement acts as a tension member of the truss and take the thrust of the load with a resilient resistance.

By the construction indicated the pressure or thrust is not taken directly against the projections or ribs, but is first taken by the main portion of the support. The strain is then transferred to the projections or ribs and is absorbed by them. As they do not bear against the wall or bearing which carries the support, these projections or ribs are free to exert a resilient resistance to the thrust or load.

Having described my invention, what I claim is:

1. A plastic support comprising a main support or slab and one or more projections or ribs homogeneous therewith, the projections or ribs having flaring and diminishing ends providing large areas of contact between the end portions of same and the main support and desired depth at middle of support with a small quantity and weight of material.

2. A plastic support comprising a main support or slab and one or more projections or ribs homogeneous therewith and having metal reinforcement embedded therein, the projections having flaring and diminishing ends providing large areas of contact between the end portions of same and the main support and desired depth at middle with a small quantity and weight of material.
- 5 3. A resilient plastic support comprising a main support or slab and homogeneous therewith intersecting projec-

tions or ribs having flaring and diminishing ends, the slab having a supporting rim beyond the said ends of the projections or ribs.

In testimony whereof I affix my signature, in presence of two subscribing witnesses.

GEORGE P. WOOD.

Witnesses:

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LOUIS MOLNAR.