

(No Model.)

J. HENDRA & W. GOODING.

TREAD OF STAIRS, DOORSTEPS, MATS, &c.

No. 364,717.

Patented June 14, 1887.

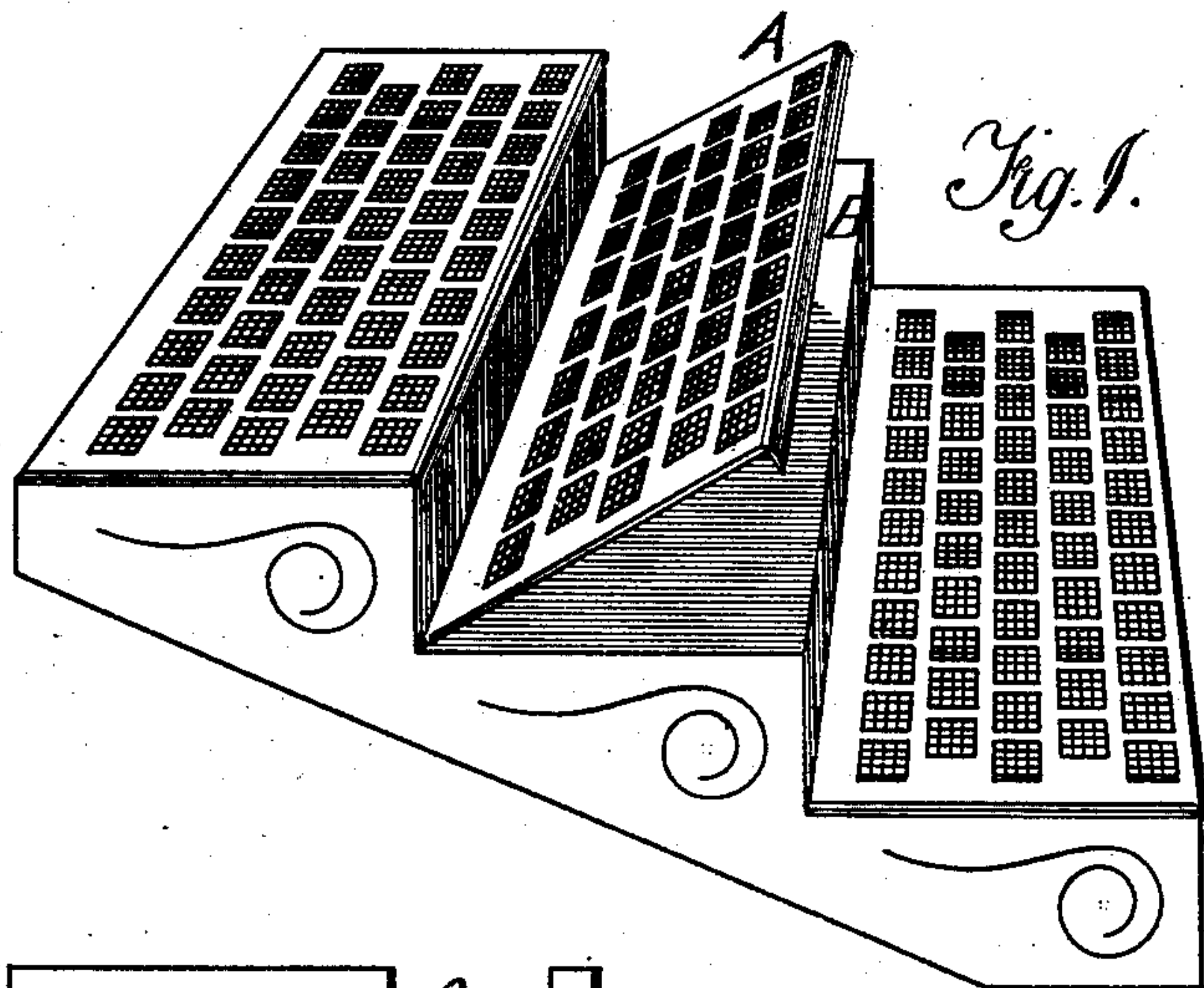


Fig. 1.

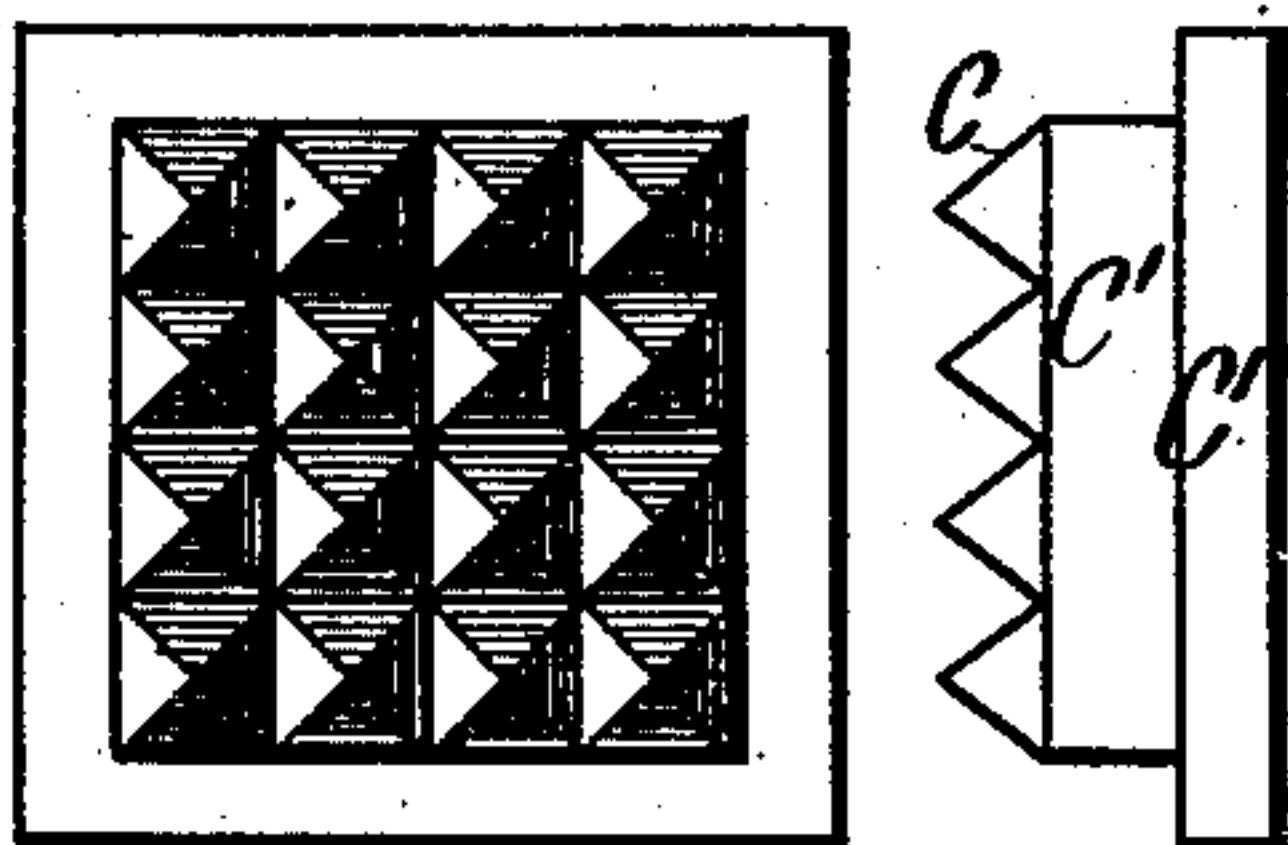


Fig. 4.

Fig. 5.

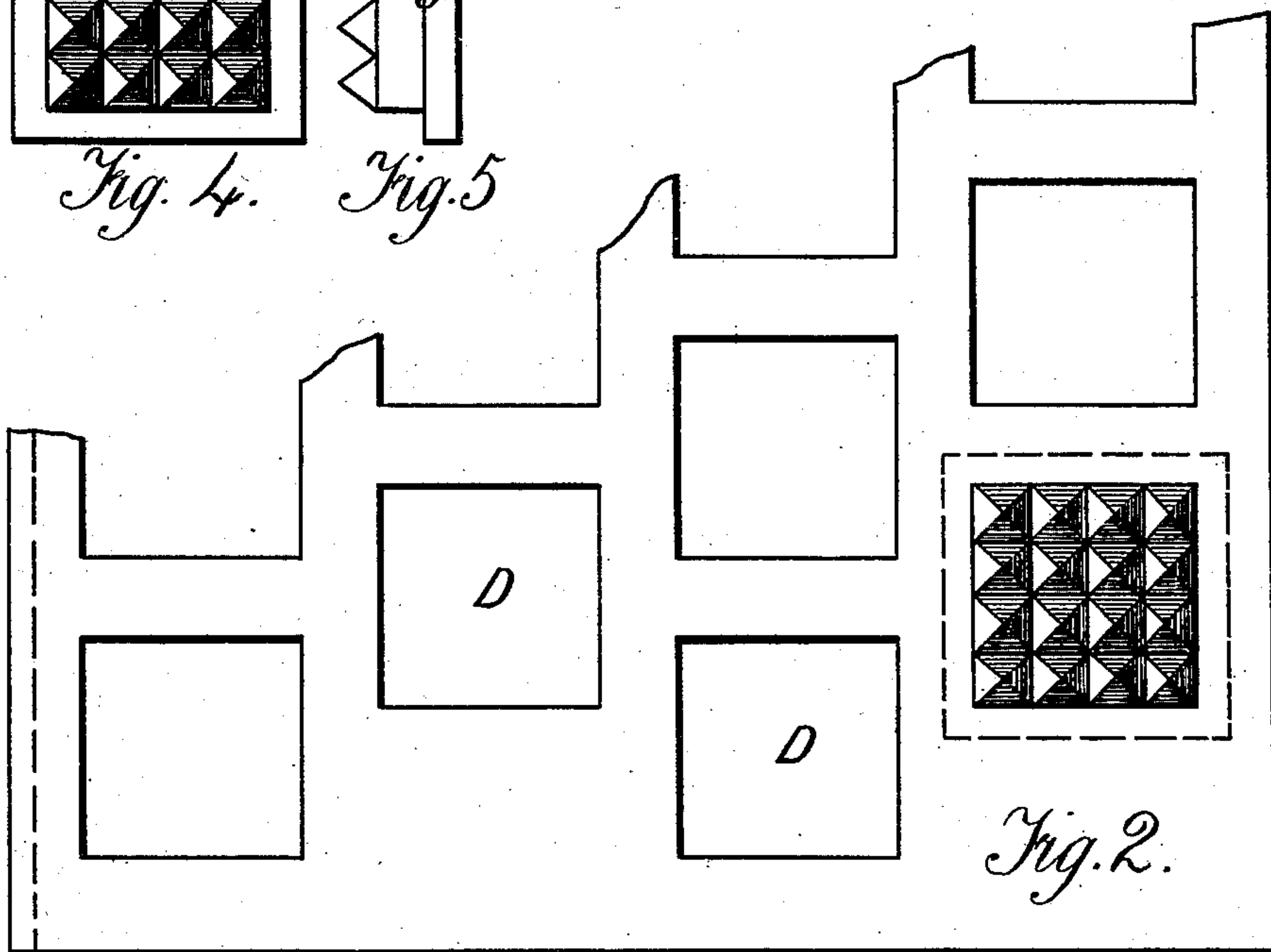


Fig. 2.

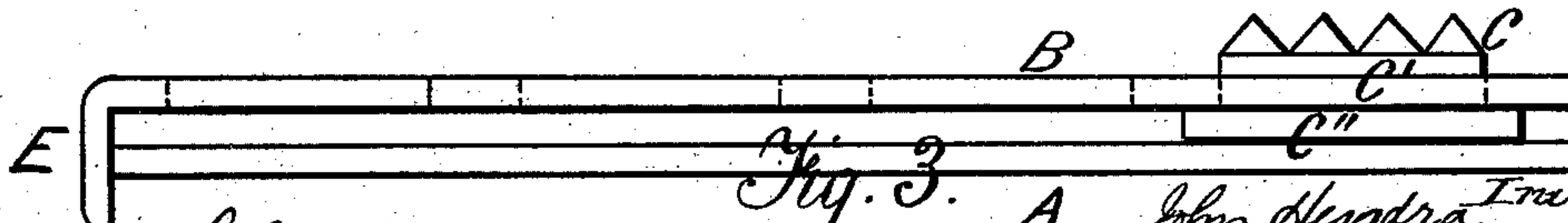


Fig. 3.

*Signed in the presence of
William J. Menden
William W. Becknell*

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William Gooding
by their attorney Richard R. Hutchinson*

UNITED STATES PATENT OFFICE.

JOHN HENDRA AND WILLIAM GOODING, OF HOLLOWAY, COUNTY OF MIDDLESEX, ENGLAND.

TREAD OF STAIRS, DOOR-STEPS, MATS, &c.

SPECIFICATION forming part of Letters Patent No. 364,717, dated June 14, 1887.

Application filed October 11, 1886. Serial No. 215,825. (No model.) Patented in England January 6, 1886, No. 229.

To all whom it may concern:

Be it known that we, JOHN HENDRA, iron-founder, of 54 Freegrove Road, Holloway, and WILLIAM GOODING, builder, of 11 North Road, Holloway, both in the county of Middlesex and in the Kingdom of Great Britain, have invented certain new and useful Improvements called "An Improved Construction of Treads of Stairs, Door-Steps, Mats, Landings, Floorings, and other similar wearing-surfaces;" and we do hereby declare that the following is a full, clear, and exact description thereof.

Our invention relates to an improved method of constructing the treads of stairs, steps, mats, landings, floorings, and other similar wearing-surfaces; and it consists in making the wearing-surfaces out of small disconnected blocks of the same size and shape, which are held down by means of flanges projecting from their lower edges between two plates, which together form a frame and through perforations in the top plate of which the blocks project. The blocks, the surfaces of which form the practicable face of the tread or mat, are therefore interchangeable, and their relative positions can be changed by simply opening the frame and making the desired rearrangement—*e. g.*, moving the partially-worn blocks from the middle of the tread or mat to the ends or corners and the blocks therefrom to the middle, replacing, if necessary, the blocks which are quite worn out by new ones and reclosing the frame. These blocks are made of india-rubber, wood, or other suitable material, and the plates may be made of metal or wood. We do not confine ourselves to any particular material.

We will now proceed to describe our invention in detail, referring to the accompanying drawings, in which like parts are marked with the same reference-letter.

Figure 1 is a perspective view illustrating the application of our invention to an ordinary staircase. Fig. 2 is a plan of part of a staircase-tread fitted with our invention, and Fig. 3 an end elevation of the same. Fig. 4

is a plan, and Fig. 5 a side elevation, of a block.

A is a tray or plate, which, with the perforated plate B, constitutes the frame. These two plates are held together in any convenient way—*e. g.*, by screws. Any suitable means may be adopted for connecting the plate A to the frame of the staircase, according to circumstances. The upper plate is perforated for the purpose of allowing the upper part of the blocks C to pass through them. These perforations D are shown (as are the blocks) in the drawings as square in plan, although we would have it distinctly understood that our invention does not limit us to this shape. Any shape (in point of plan) may be adopted, according to the suggestions or fancy, or the conveniences of manufacture; but in any given piece of work—for instance, fitting our invention to all the stairs of a large railway-station—all the blocks would be uniform in size and shape. The front edge of the top plate, B, is advantageously extended into a nosing, E.

When our invention is to be applied to other purposes than that illustrated and described above, the shape of the bottom plate is naturally modified accordingly. In making our invention as a mat the plate would be made like a tray and the nosing E dispensed with. In each of the several applications of which our invention is capable the particular shape of the plates A and B will be modified accordingly, the remaining features—those of the invention—being constant throughout all.

The blocks C consist of three parts—the face C, which may be serrated (as for a mat) or made in small pyramids, as illustrated, the body C', and the flange C". The blocks and the plate A may be perforated when made for staircase work to allow of the passage of light. They may be made with any desired amount of projection above the top plate and the perforations D arranged to produce any desired design.

Having now particularly described and ascertained the nature of our said invention, and in what manner the same is to be performed, we declare that what we claim is—

5 Treads, mats, landings, floorings, and the like consisting of pairs of plates, the top plates perforated with perforations of the same shape and size throughout to receive the projecting bodies of blocks of the same shape and
10 size as the perforations, substantially as described with reference to the accompanying figures.

In testimony that we claim the foregoing we have hereunto set our hands this 24th day of September, 1886.

JOHN HENDRA.

WILLIAM GOODING.

In presence of—

ERNEST MANDER,
61 Brompton Square, S. W., Stock-Broker's Clerk.

HERBERT RIDGWAY,
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London.