

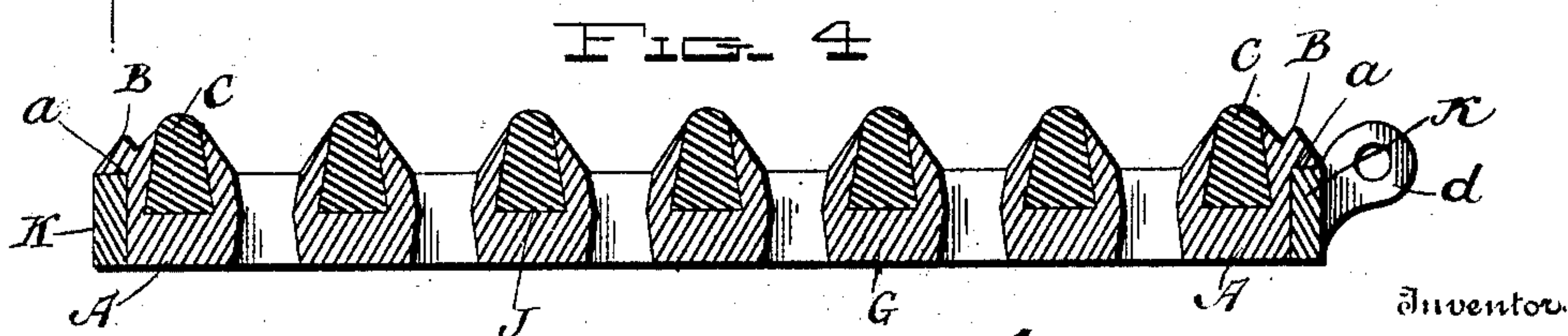
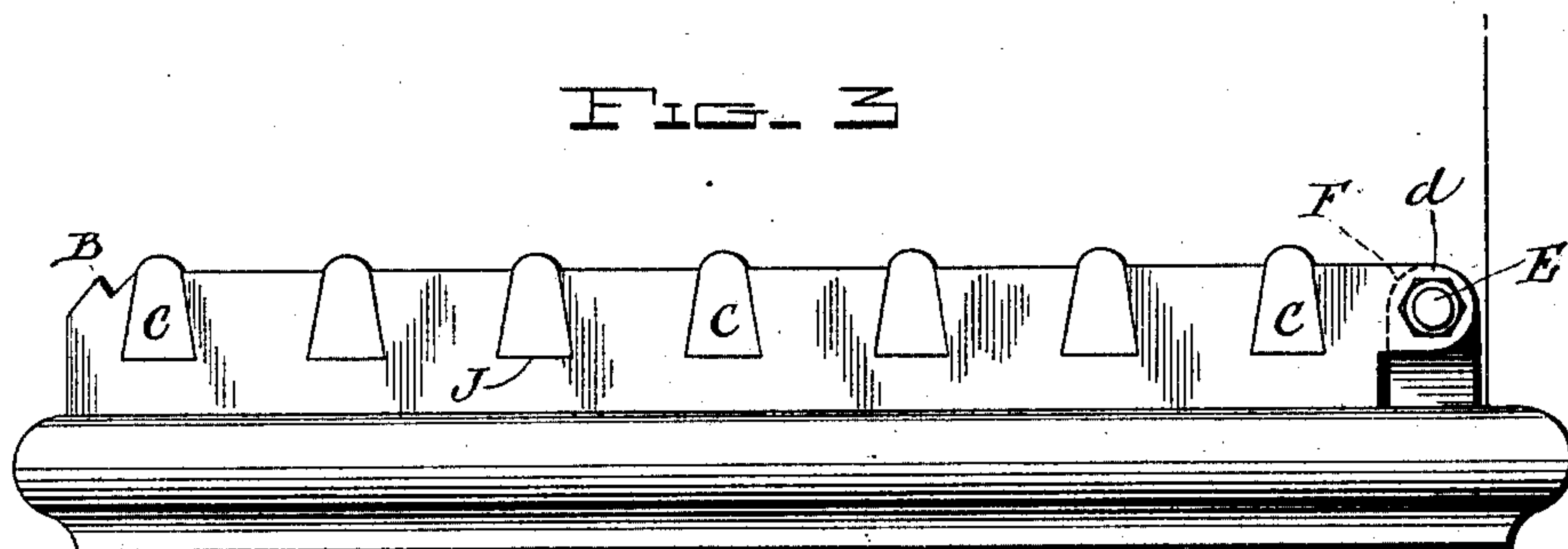
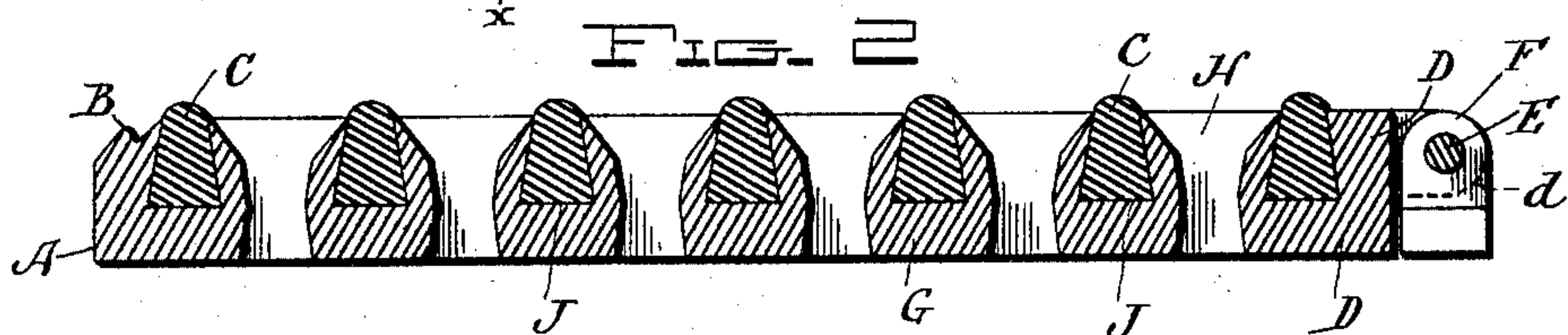
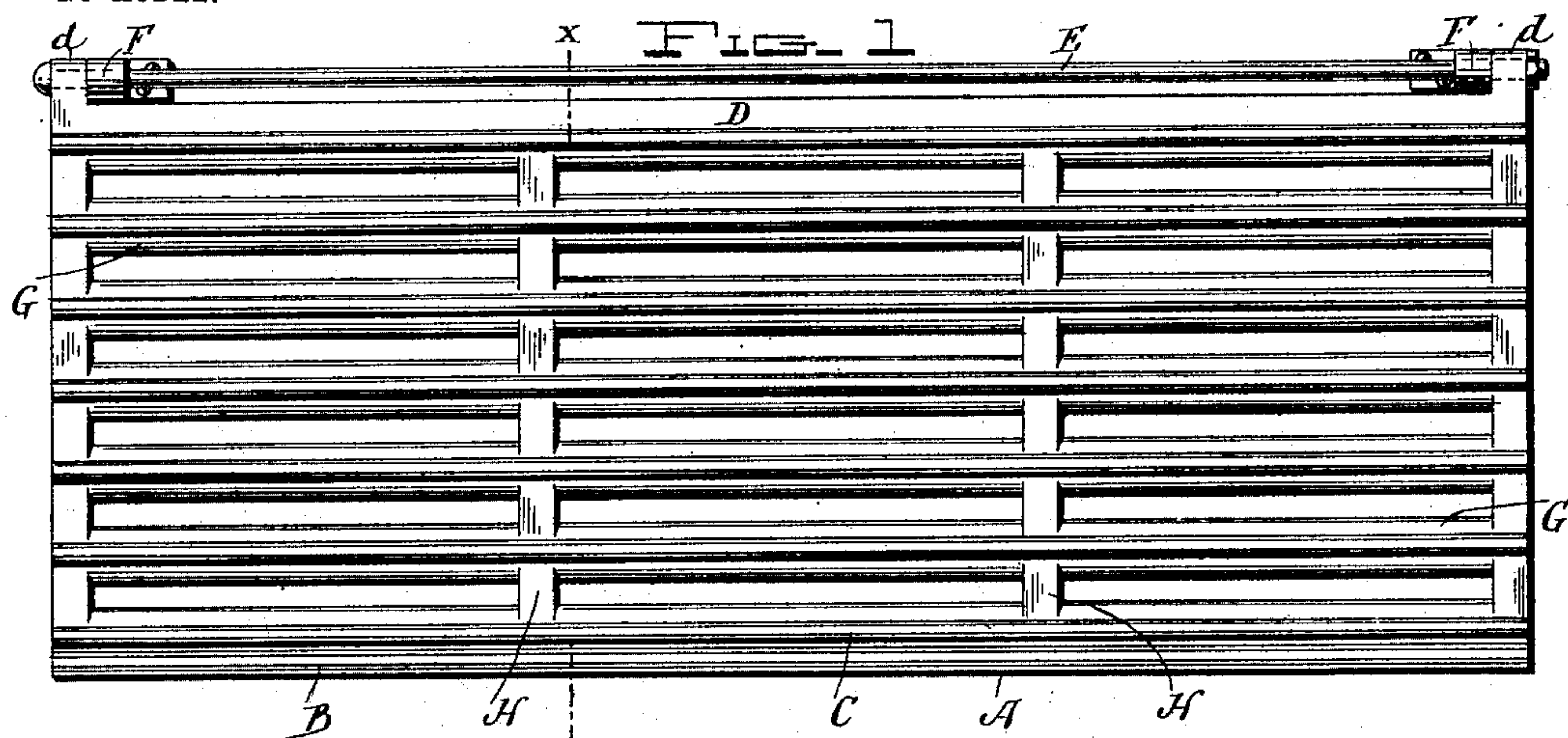
No. 756,507.

PATENTED APR. 5, 1904.

C. KNOPF.
STAIR MAT.

APPLICATION FILED SEPT. 8, 1903.

NO MODEL.



Witnesses
Wm. Humbert
Edw. A. Gray

Carl Knopf

Inventor.

UNITED STATES PATENT OFFICE.

CARL KNOFF, OF NEW YORK, N. Y.

STAIR-MAT.

SPECIFICATION forming part of Letters Patent No. 756,507, dated April 5, 1904.

Application filed September 8, 1903. Serial No. 172,291. (No model.)

To all whom it may concern:

Be it known that I, CARL KNOFF, a citizen of Germany, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Stair-Mats, of which the following is a specification.

My invention relates to stair-mats; and it consists in a removable step-cover belonging to that special variety of mats comprising a wooden or iron base or grid having bodies of india-rubber embedded or in some manner held therein. Certain of these mats are constructed openly in order that the dirt from the shoes of the users may drop through upon any surface beneath, and others are formed with a flat plate-base without openings. My invention falls particularly in the class with the first-mentioned construction.

The object of my invention is to provide a mat of special and peculiar construction rendering it generally more effective and useful in accomplishing the purpose common to all stair-mats of this character, which is to prevent the feet from slipping on the stairs in wet or icy weather.

I attain the stated object by employing parts formed and associated as illustrated in the accompanying drawings, of which—

Figure 1 is a top plan view. Fig. 2 is a cross-section on the line *xx* of Fig. 1, and Fig. 3 is an end view of my invention and shows one method of securing it on a step. Fig. 4 represents a modified form of my invention constructed to fit in a frame which is adapted to be pivoted upon the stair or floor as indicated.

Like letters refer to like parts in the several views.

The first longitudinal strip or slat lying at the edge of the step is marked A. It is somewhat heavier than the remaining slats or bars and is provided with a relatively sharp edge B, running lengthwise, as shown at the front of the step. The purpose of the edge B is to assist in catching the soles of the foot-covering of the passers and preventing slipping. The slat A extends from end to end of the

mat, and the rubber foothold C is coextensive with it. At the back of the mat the slat D is also made relatively heavier and is provided with one or more eyes *d*, (see Fig. 2,) and a rod E, passing through corresponding eyes F on the stairs and through the eyes *d* pivotally secures the mat upon the step, and as the dirt falls through the slats upon the stairs the mat may be raised by its front edge and the surface under it cleaned. The mat is thus secure against displacement when the stairs are being hurriedly swept. There may be any desired number of eyes *d* and F. Intermediate slats G are constructed alike. They are interrupted at intervals by cross-pieces or reinforce-bars H. All slats have the dovetail groove J, and all the rubber strips or footholds are correspondingly formed at the bottom. The rubbers are inserted in the grooves by compressing them, and they then expand and fill the groove, practically holding themselves in place. It will be noted in Fig. 1 that the rubber strips (marked C) extend the whole length of the mat—that is to say, the rubber strips C are about as long as the step is wide. The intermediate slats G merge into and are formed integrally with cross-pieces H, making the metal grid or base of my invention all of one piece.

Fig. 4 illustrates a modified form of my invention adapted to be placed in a rectangular frame K. The frame in this modification is provided with the eyes *d*, as in the case of rear slat D, and may be in like manner pivoted to the step, or the eyes can be omitted and the mat in its frame K used as a door-mat. In the modified form the slat A is recessed to afford a shoulder *a*, which fits upon the upper edge of the frame K, as drawn. In all other respects the slat A possesses the same structure as before. Instead of the rear slat D, as in the form of my invention first herein described, the modification has two recessed slats A, arranged front and rear and each of course equipped with the rubber footholds C. The intermediate slats G and cross-pieces H undergo no change.

I am aware that dovetail grooves in the slats

and correspondingly-shaped rubber strips held in the groove by their own elasticity are not new, and I do not claim those features broadly.

What I claim, and desire to secure by Letters Patent of the United States, is—

1. In a stair-mat, the combination of the metal slat A extending the length of the mat and having the edge B, additional metal slats extending lengthwise of the mat and parallel with said slat A, the cross-pieces H formed integrally with said slats and reinforcing them at the ends and at intermediate intervals, all said slats being grooved lengthwise and said cross-pieces transversely, the said grooves extending the entire length of said mat, and the rubber strips C secured in the said grooves and equaling the mat in length, substantially as described.

2. In a stair-mat, the combination of the metal slat A extending the length of the mat and having the edge B, additional metal slats extending lengthwise of the mat and parallel with said slat A, the cross-pieces H formed integrally with said slats and reinforcing them at the ends and at intermediate intervals, all said slats being grooved lengthwise and said cross-pieces transversely, the said grooves extending the entire length of said mat, means

for pivotally securing the mat upon a step, the said slat A being arranged with the said edge B at the edge of the step, and the rubber strips C secured in the said grooves and equaling the mat in length, substantially as described.

3. In a stair-mat, the combination of the front and rear metal slats A having the edges B and shoulders *a*, intermediate metal slats extending lengthwise of the mat and parallel with the said slats A, the cross-pieces H formed integrally with the said slats and reinforcing them at the ends and at intermediate intervals, all said slats being grooved lengthwise and said cross-pieces transversely, the said grooves extending the entire length of said mat, the rubber strips C secured in the said grooves and equaling the mat in length, the frame K engaging the shoulders *a* of said slats A and supporting the mat, and means for pivotally securing said frame upon a step, substantially as described.

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

CARL KNOFF.

Witnesses:

WILLIAM HUMBERT,
CHARLES H. COUDER.