No. 684,822. Patented Oct. 22, 1901.

F. B. HUCKSTEP.

FLEXIBLE METAL FLOOR MAT.

(Application filed Dec. 17, 1900.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1

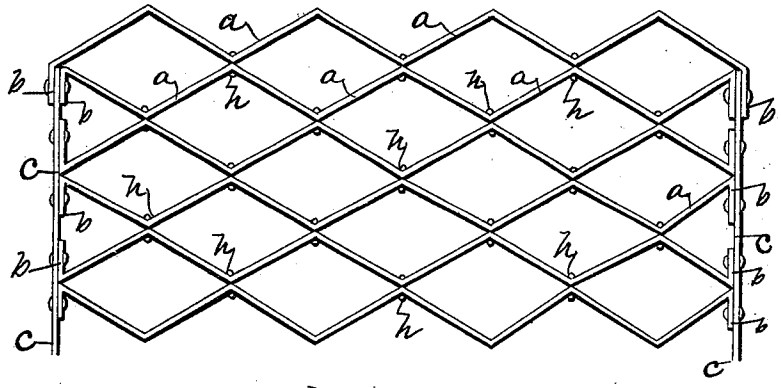


Fig. 2

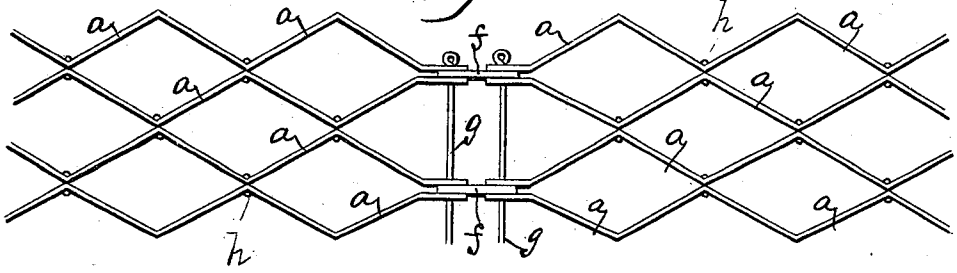


Fig. 3

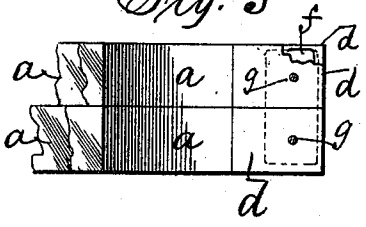


Fig. 5

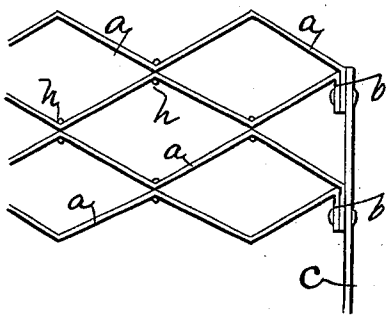
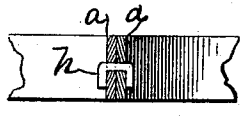


Fig. 4



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Inventor: Francis B. Huckstep,
By Thomas G. Orwig, Atty.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

No. 684,822. Patented Oct. 22, 1901.

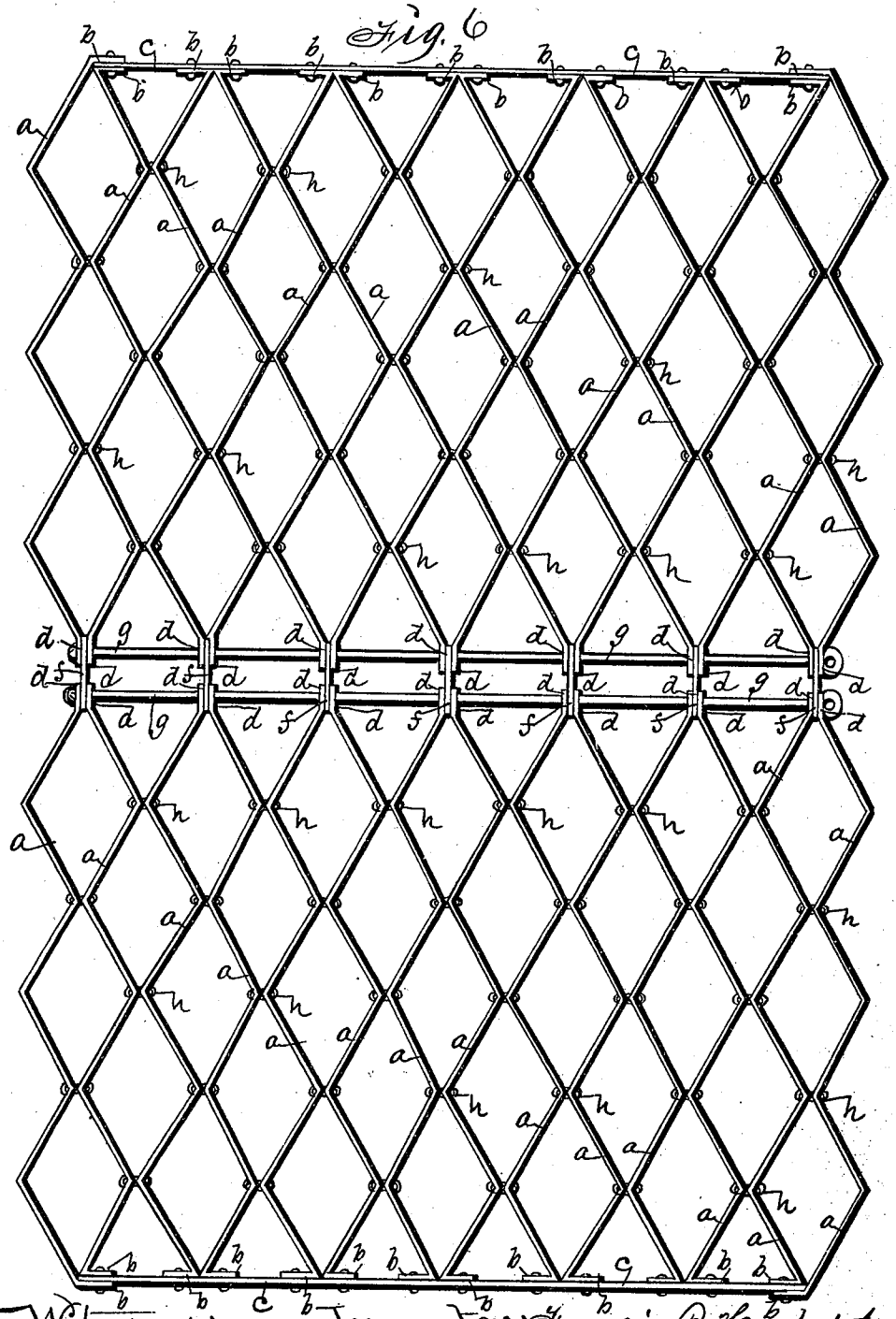
F. B. HUCKSTEP.

FLEXIBLE METAL FLOOR MAT.

(Application filed Dec. 17, 1900.)

(No Model.) 2 Sheets—Sheet 2.

Fig. 6



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UNITED STATES PATENT OFFICE.

FRANCIS B. HUCKSTEP, OF DES MOINES, IOWA.

FLEXIBLE METAL FLOOR-MAT.

SPECIFICATION forming part of Letters Patent No. 684,822, dated October 22, 1901.

Application filed December 17, 1900. Serial No. 40,137. (No model.)

To all whom it may concern:

Be it known that I, FRANCIS B. HUCKSTEP, a citizen of the United States, residing at Des Moines, in the county of Polk and State of Iowa, have invented a new and useful Flexible Metal Floor-Mat, of which the following is a specification.

My object is to provide a neat, strong, reversible, and durable metal door-mat by shaping and rigidly connecting flat strips of metal, and also to connect rigid sections of a mat in such a manner that they can be advantageously folded compactly together to facilitate handling and to econimize space in storing and shipping.

My invention consists in the construction, arrangement, and combination of parts, as hereinafter set forth, pointed out in my claims, and illustrated in the accompanying drawings, in which—

Figure 1 is a top view of the end portion of the mat and shows the shapes of the metal straps and the manner of rigidly connecting them. Fig. 2 shows portions of two rigid sections hinged together in such a manner that they can be folded upon each other. Fig. 3 is an enlarged view illustrating the manner of producing a hinge connection between two rigid sections that will allow them to be folded in reverse ways to overlie each other. Fig. 4 is an enlarged view showing the manner of rigidly connecting the strips of metal at their points of contact, as required, to produce diamond-shaped cells. Fig. 5 shows a modified manner of connecting the ends of two serpentine strips of metal and a straight strip by means of a single rivet in place of two rivets, as shown in Fig. 1. Fig. 6 is a top view of a complete mat, consisting of two rigid sections hinged together in such a manner that they can be folded flat upon each other.

The letters *a* designate flat metal strips of uniform width and thickness bent into serpentine form, preferably as shown, so as to produce diamond-shaped cells. Their ends are bent laterally to produce perforated ears *b*, adapted to be rigidly connected with straight pieces *c* of corresponding width by means of rivets and with each other at their joints to contact, as shown in Figs. 1 and 5, and as required to produce a finished edge. To connect two or more rigid sections, the contiguous ends or perforated ears *d* are extended in parallel position and a short straight piece *f* of the strap metal fitted between them and provided with coinciding perforations, so that rivets or straight wires *g* can be extended through the coinciding perforations to allow the short pieces *f* to serve as hinge members in producing duplex joints between the rigid sections. The ends of the wires are bent to prevent longitudinal movement.

The contiguous straps *a* are rigidly connected at their contacting points by means of short pieces of wire *h*, passed through coinciding perforations, and then bent into the form of staples, as shown, or in any suitable way, so as to fasten them securely together. Rivets of common form may be used in place of the short pieces of wire.

By using short wires *h* in place of rivets the ends of the wires can be readily bent at right angles, as required, to securely fasten the contacting parts *a a* together, as shown in Fig. 4, by one motion of a tool adapted to stride the overlying part.

By bending the ends *b* of the two straps *a a* at the end of a mat the ends *b* can be jointly and advantageously riveted to the end of the straight side bar *c*, as shown in Fig. 1, to produce a finished ornamental scalloped end and corners that are not square or pointed.

Having thus described the construction of my invention, its practical utility will be obvious to persons familiar with the art to which it pertains, and what I claim as new, and desire to secure by Letters Patent, is—

1. In a metal door-mat, a plurality of serpentine metal straps rigidly connected at their contacting points and provided with perforated ears at one end and said ears fixed to a straight metal strap and their other ends terminating in parallel perforated extensions connected with short pieces of metal straps, in the manner set forth for the purposes stated.

2. A foldable metal door-mat comprising metal straps bent into serpentine shape and fixed together at their contacting points and their ends provided with perforated ears and straight metal straps fixed to their outer ends,

to produce rigid sections, and their inner ends extended parallel to each other and provided with coinciding perforations, short and straight pieces of metal straps perforated at their end portions pivotally connected with said parallel ends and the corresponding ends of another rigid section by means of wires to produce duplex hinges, arranged and combined to operate in the manner set forth for the purposes stated.

FRANCIS B. HUCKSTEP.

Witnesses:
R. H. ORWIG,
THOMAS G. ORWIG.