

No. 684,383.

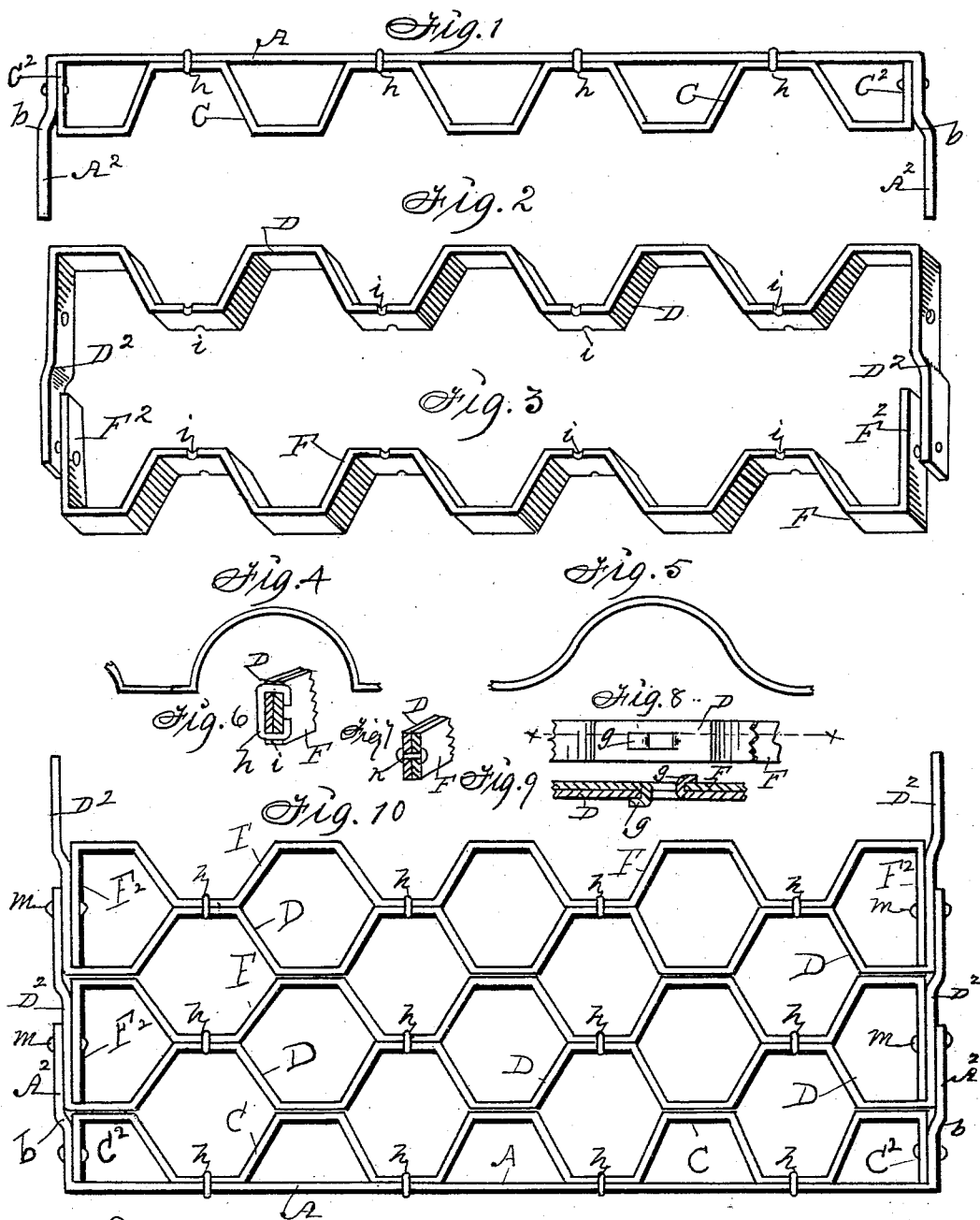
Patented Oct. 8, 1901.

G. ROSS.
FLEXIBLE METAL DOOR MAT.

(Application filed Sept. 25, 1900.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses:
R. H. Orwig,
J. E. Swanson

Inventor: Grant Ross,
By Thomas G. Orwig, Attorney.

No. 684,383.

Patented Oct. 8, 1901.

G. ROSS.

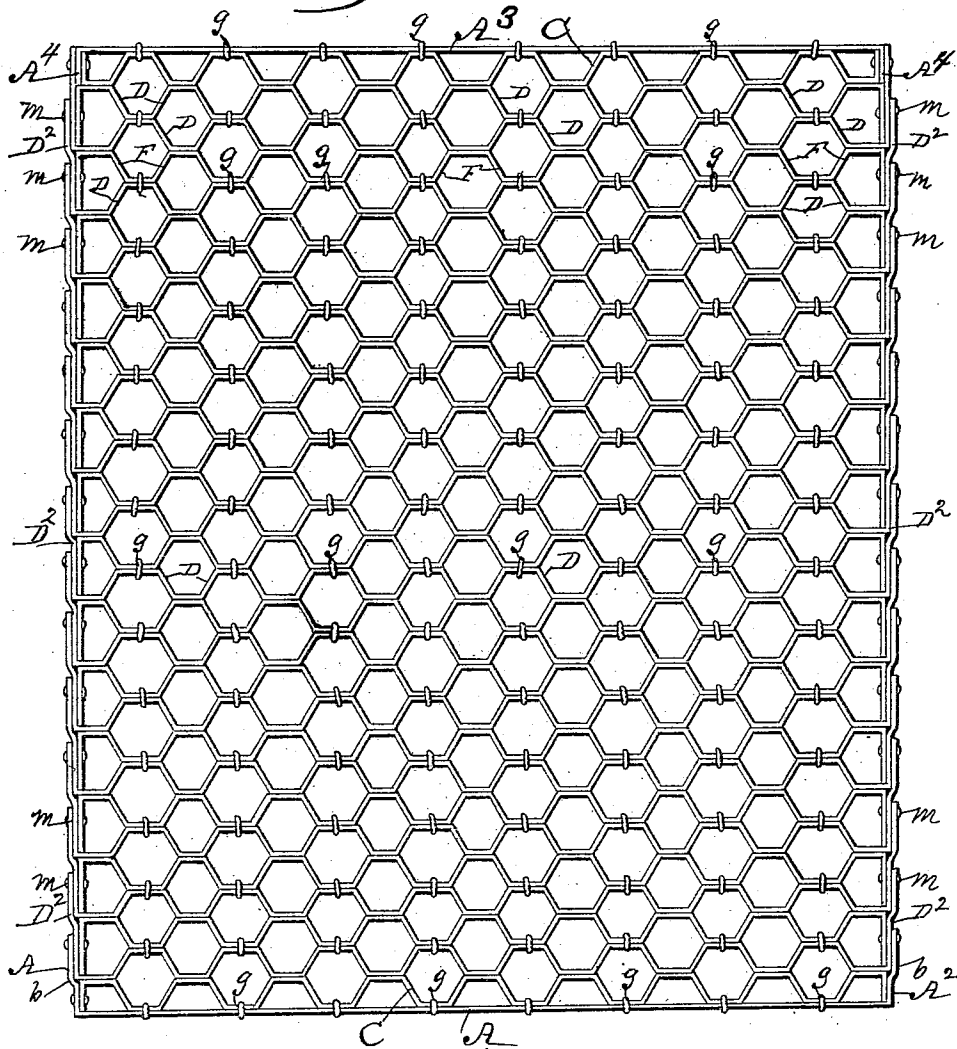
FLEXIBLE METAL DOOR MAT.

(Application filed Sept. 25, 1900.)

(No Model.)

2 Sheets—Sheet 2.

Fig. 11.



Witnesses:
P. H. Orring,
B. H. Emery.

Inventor: Grant Ross,
By Thomas G. Orring,
Attorney.

UNITED STATES PATENT OFFICE.

GRANT ROSS, OF DES MOINES, IOWA.

FLEXIBLE METAL DOOR-MAT.

SPECIFICATION forming part of Letters Patent No. 684,383, dated October 8, 1901.

Application filed September 25, 1900. Serial No. 31,116. (No model.)

To all whom it may concern:

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

My object is to produce a strong, durable, and flexible door-mat by shaping and connecting metal straps of uniform width and
10 length in such a manner that the mat will be reversible and the wear on the edges of the straps toward their centers and also in such a manner that the straps will extend parallel with each other and adapted to be doubled
15 up on each other into a compact roll.

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

Figure 1 is a plan view of one of the rigid ends of my mat adapted to be pivotally connected with the body portion of the mat.
25 Figs. 2 and 3 are perspective views of two metal straps adapted to be connected to produce a rigid section of such form and length as is required to be adapted to be pivotally connected at its ends with a mating section
30 in a complete mat. Figs. 4 and 5 show modified forms of lateral bends in the metal straps. Fig. 6 shows two parts rigidly connected by means of a metal loop fixed thereto. Fig. 7 shows two parts riveted together. Fig. 8 is a
35 side view of parts fixed together by means of integral clasps. Fig. 9 is a sectional view on the line *x x* of Fig. 8. Fig. 10 shows a plurality of rigid frames pivotally connected with each other and one of the rigid ends as
40 required to produce a flexible metal mat of any width or length desired. Fig. 11 is a top view of a complete mat, in which the outside straight bar at one end of the mat has shorter right-angled extensions at the ends of the
45 straight bar than the straight bar at the other end of the mat.

The letter A designates one of the metal straps adapted to produce a rigid end. Its end portions are bent at right angles, and
50 the right-angled extensions A² thus produced have lateral bends *b*. At one end of the mat, as shown in Fig. 1, is a straight metal

strap A³, that has short right-angled extensions A⁴. A second strap C is bent laterally in reverse ways, preferably as shown in Figs. 55 1 and 10, and its ends are bent at right angles and fitted and fixed to the inside faces and corners at the ends of the straps A by means of rivets or in any suitable way. The end portions of the strap C, that extend at right angles thereto and that contact with the inside
60 face of the straight strap A, are also rigidly fixed thereto in such a manner that the end of a mat thus composed of two straps will be rigid and by perforating the ends of the
65 right-angled extensions A² adapted to be pivotally connected or hinged to the end portion of the mat.

To produce one of the rigid sections of the body portion of the complete mat, a strap D
70 is bent laterally in reverse ways along its length and its ends bent at right angles and the right-angled extensions D² bent laterally at their central portions to adapt them to be pivotally connected, as shown in Fig. 10. A
75 second strap F is also bent in reverse ways along its length and at right angles at its ends to be rigidly fixed to the strap D, where the lateral extensions are in contact and also where the right-angled extensions F² overlie
80 the inside faces of the extensions D² of the strap D. Each rigid section is composed of straps D and F, and their contacting portions, that are bent laterally into semi-hexagon
85 shape, are rigidly connected, preferably by forming coinciding openings therein and integral clasps *g* and extending the clasps through the openings and then bending them
90 in reverse ways, as shown in Figs. 8 and 9. Any number of rigid sections thus composed of two metal straps D and F can be readily
95 hinged together, and also with rigid straight ends composed of straps A and C, by means of pivots *m*, as shown in Fig. 10, to produce a flexible and reversible metal mat. By bending
100 the extensions D² of the straps D laterally and perforating the free end portions they are adapted to serve as links for hinging together the rigid sections composed of straps D D² and F F², as required to produce a flexible mat that can be advantageously rolled together.

Having thus described the construction, arrangement, and combination of the different

parts of my invention, its practical utility will be obvious to persons familiar with the art to which it pertains.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a metal door-mat, a rigid end composed of a straight metal strap having right-angled extensions at its ends and a second metal strap bent laterally in reverse ways along its length and its ends bent at right angles to overlie the inside faces of the said extensions at the ends of the straight strap and the two straps fixed together at the various points where they contact with each other.

2. In a metal door-mat, a rigid section composed of a metal strap bent laterally along its length in reverse ways and having its ends extended at right angles and perforated to serve as links for hinging the sections together, and a second strap bent laterally along its length in reverse ways to form bends that mate those of the first-mentioned strap, and to form right-angled extensions at its ends, the contacting parts of the straps

being rigidly secured together, substantially as shown and described.

3. A flexible and reversible metal door-mat comprising a plurality of rigid frames each composed of a metal strap bent laterally in reverse ways along its length and its ends extended at right angles and a second metal strap bent in reverse ways along its length and its ends bent at right angles and the two straps fastened together at their overlying and contacting points; and two rigid end pieces each composed of a straight strap bent at right angles at its ends and the right-angled extensions perforated and a second metal strap bent at right angles in reverse ways along its length and its end bent at right angles and the two straps fitted and fixed together as shown and all the said rigid frames and the two rigid end pieces pivotally connected in the manner set forth for the purposes stated.

GRANT ROSS.

Witnesses:

J. C. TATE,
LIZZIE KEHOE.