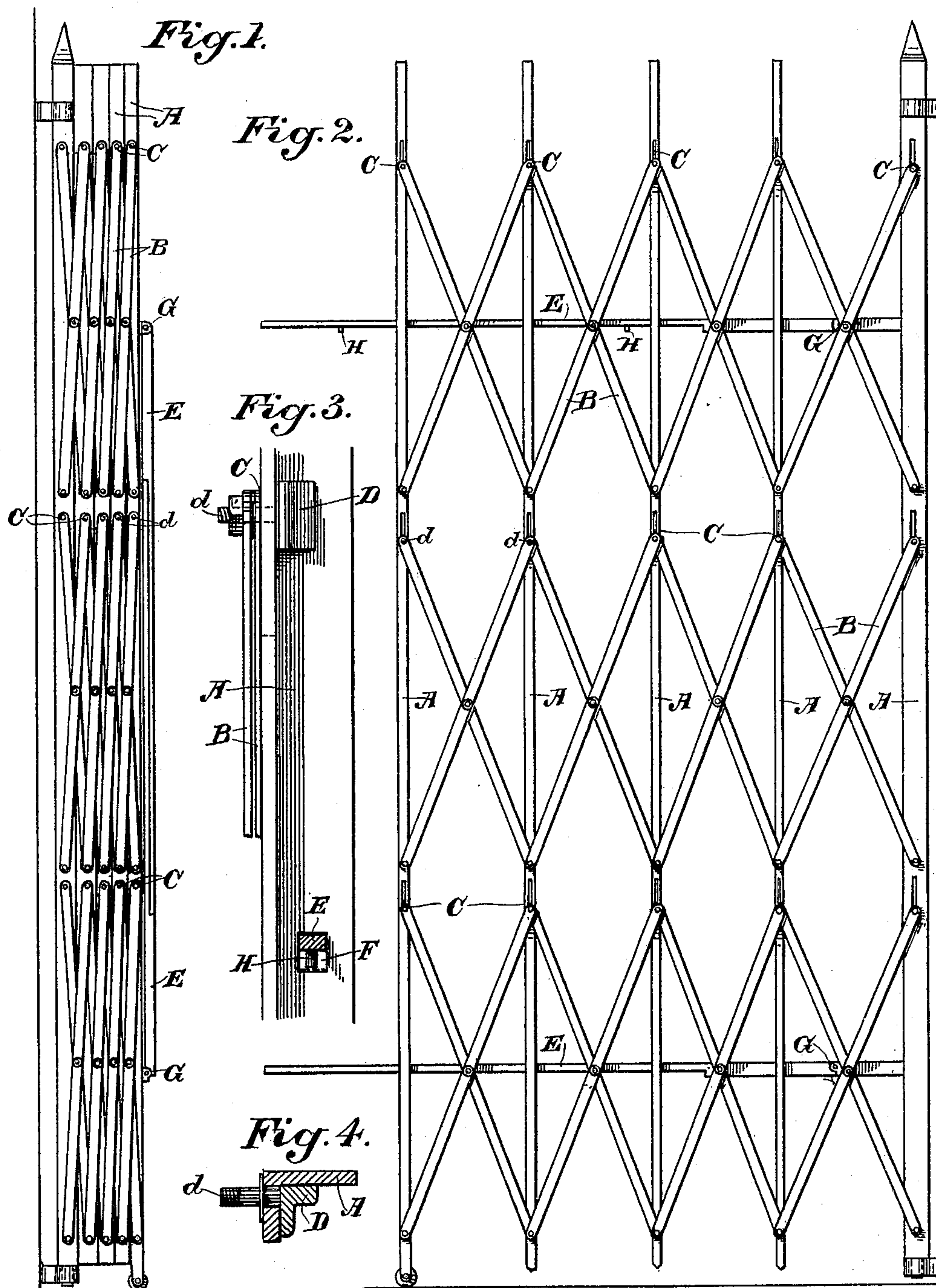


(No Model.)

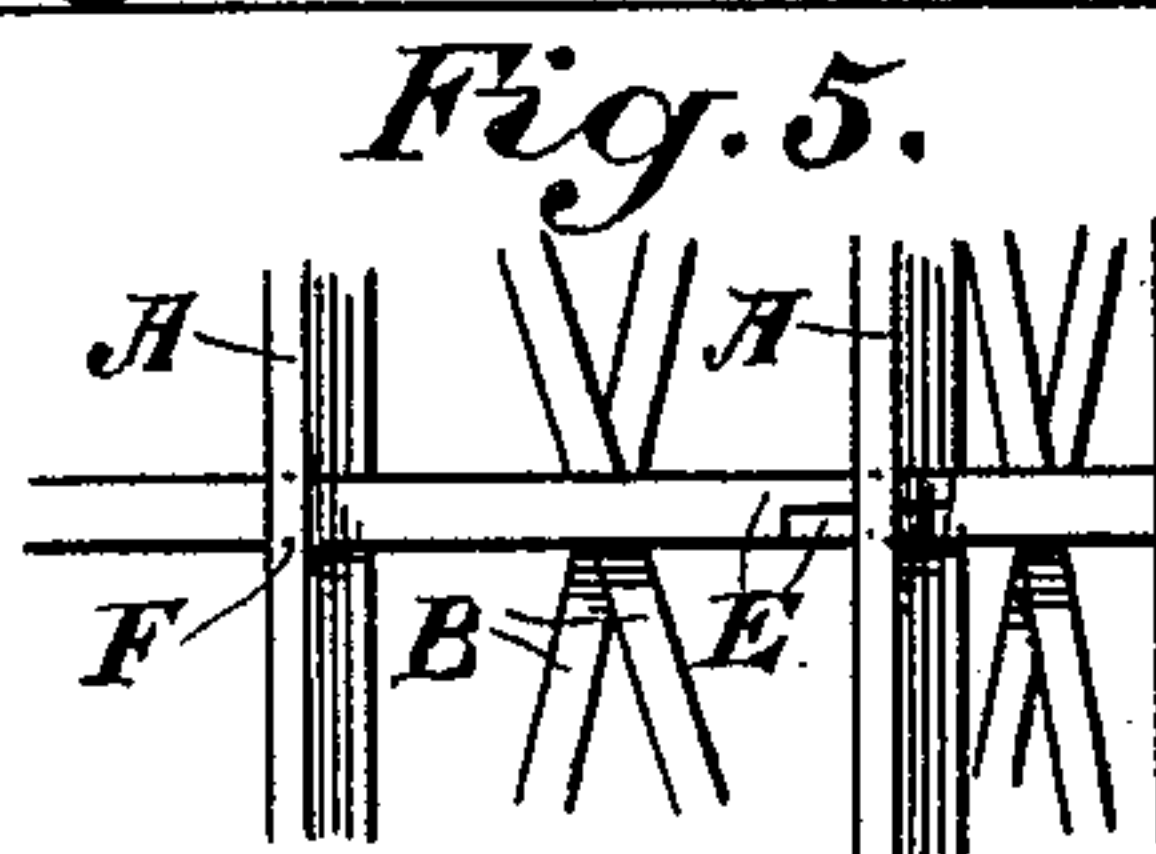
J. T. McCORMICK.
FOLDING GATE.

No. 583,235.

Patented May 25, 1897.



Witnesses,
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J. F. Aschbeck



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UNITED STATES PATENT OFFICE.

JOHN T. McCORMICK, OF SAN FRANCISCO, CALIFORNIA.

FOLDING GATE.

SPECIFICATION forming part of Letters Patent No. 583,235, dated May 25, 1897.

Application filed February 25, 1897. Serial No. 624,952. (No model.)

To all whom it may concern:

Be it known that I, JOHN T. McCORMICK, a citizen of the United States, residing in the city and county of San Francisco, State of California, have invented an Improvement in Folding Gates; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to improvements in that class of gates which are designed to form a temporary lattice or open work closure for passage or hall ways, windows, and for other like purposes.

It consists in details of construction, which will be more fully explained by reference to the accompanying drawings, in which—

Figure 1 shows the gate folded. Fig. 2 shows a gate opened out. Fig. 3 is a side view of a slidable pivot. Fig. 4 is a horizontal section through the same. Fig. 5 shows the manner of connecting the guide-bars when large gates are used.

This class of gates is usually constructed of rectangular bars of iron, forming the vertical portions of the gate, and connecting-bars crossing each other, so as to allow the gate to be extended across the passage or opening and closed up against the side.

In the constructions hitherto employed the thickness of the vertical portions and the manner of connecting the diagonal folding bars therewith are such that when folded the gate occupies a very considerable space.

As these gates are usually fitted to close hallways or passages where the gate when closed must lie against the side of the hall or passage the ordinary construction makes the gates very bulky, so that they will occupy about one inch and a half or more for each foot of the gate when extended.

In my invention the vertical bars A are made of angle-iron one-half by three-fourths of an inch, more or less, in depth, according to height—that is, in the direction transverse to that in which the gate opens and closes—so that when these angle-bars are folded against each other they occupy very little space. I also attain a considerable advantage in the stiffness of the gate by reason of the transverse depth of these bars.

The vertical bars are connected together by diagonal bars B, which have one end pivoted to

the vertical bars A and the other end attached to pivots C, which are movable in slots formed in the vertical bars near the inner angles, as shown. In order to properly pivot these diagonal bars to the bars A, I prefer to employ angular sliding blocks D, which have essentially the same shape as the interior angles, against which they are slidable. The angular pieces D have projecting pins *d* or attaching-screws passing through the slots in A and upon which the bars B are turnable. The bars B are also pivoted to each other at their points of crossing, as shown. These bars may either be made in short independent sections, each bar connecting an adjacent pair of the vertical bars A, or they may be extended across two or more of the vertical bars, in which case one end would be pivoted, and at the other points of crossing or meeting the vertical bars they would be connected with angular slides D by pins movable in the vertical bars A.

By constructing the vertical bars of angle-iron, as shown, I am enabled to use iron or steel of this description as it comes from the rolling-mill, simply cutting it off to any desired length, and I am enabled to make a very rigid gate which is not easily twisted or bent out of place.

If desired, the inner post of the gate next the wall may be pivoted at top and bottom, so that the gate when closed may be turned to lie flatwise against the wall or in a recess which may be provided for it, thus leaving the passage entirely unobstructed.

In order to guide and steady the gate-sections when they are extended, I have shown the bars E, fixed at the inner end to the inner post of the gate and are adapted to extend outwardly through guides which may be fixed to the uprights A, but I prefer to make holes through the uprights, as shown at F, these holes being similar in shape to the shape of the bars E, so that the gate-sections will readily slide upon the bars when extended or closed. These bars are jointed, as shown at G, near to the inner post of the gate, so that when the gate is closed together the bars may be folded upward and downward, respectively, and lie flat against the folded gate-sections.

When the gate is to be extended, the lower bar is unfolded, and as it preferably has a

rule-joint it will lie in a straight line without being supported. The upper bar may be held in line by the hand while the gate is extended, the sections A sliding upon the bars until
 5 each section is fully extended. The bars E are made with a portion of the upper and lower sides, respectively, cut away, so that the bars from each gate when let down will overlap each other, having a thickness ap-
 10 proximately equal to the main portions of the bars, and they may be united by pins, as shown at H, so that the two bars extending and overlapping each other from opposite sides will practically form a solid bar, and the gate-sec-
 15 tions, being extended, will slide over these overlapped portions of the bars, thus locking the whole together and forming a rigid structure. When the gates are thus closed to-
 20 gether, they may be locked by any suitable locking device, and will then form a very solid barrier.

When the gates are opened, they are first unlocked, then each section is pushed back until the vertical parts are closed together,
 25 as before described, and the horizontal top and bottom bars are folded up and down, respectively, alongside the vertical bars A, so that the device occupies but little space. It will be seen by the construction of the diago-
 30 nal cross-bars and manner of pivoting them to the vertical bars that these will also close up into as small a compass as the thickness of the vertical bars will admit.

One or more of the vertical bars A may carry
 35 small rollers at the bottom, so that they will move easily upon a floor of any description, and no guide or track will be necessary. If very wide gates are used, the bars E, being too long to fold within the height of the gates, may
 40 be independent and have their inner ends adapted to overlap or join at G, at which point the joint will lie within the slot or guide of one of the uprights A, and thus be securely locked.

45 Having thus described my invention, what

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

1. In a folding gate, vertical bars made of metal, and angular in cross-section, said bars having slots or channels formed in them, di-
 50 agonally-disposed connecting-bars, angular blocks fitting the interior angles of the vertical bars, and slidable vertically therein, with pins extending from said blocks through the slots in the vertical bars and connecting the
 55 blocks with the angular bars.

2. In a folding gate, vertical bars formed angular in transverse section having the greatest depth transverse to the line of move-
 60 ment of the gate, and having vertical slots made through the face portion, diagonal connecting-bars pivoted together between the vertical bars, having one end of each perma-
 65 nently pivoted to said bars, slides movable in the interior angles of the vertical bars, to which slides the opposite ends of the diagonal bars are pivoted by pins or bolts extending from the slides through the slots in the verti-
 cal bars.

3. In a folding gate, vertical bars made an-
 70 gular in transverse section having the greatest depth transversely to the line of movement of the gate, the diagonal connecting-bars and the vertical slides by which the vertical bars are united and allowed to open and close, hori-
 75 zontal bars fixed to the inner ends of the gate-sections extending through holes or guides formed in the vertical bars, said horizontal bars being cut away and adapted to overlap at their meeting ends so that when the gate-
 80 sections are extended the overlapping ends are united by two or more of the vertical bars which slide over the overlapping ends.

In witness whereof I have hereunto set my hand.

JOHN T. McCORMICK.

Witnesses:

S. H. NOURSE,

JESSIE C. BRODIE.