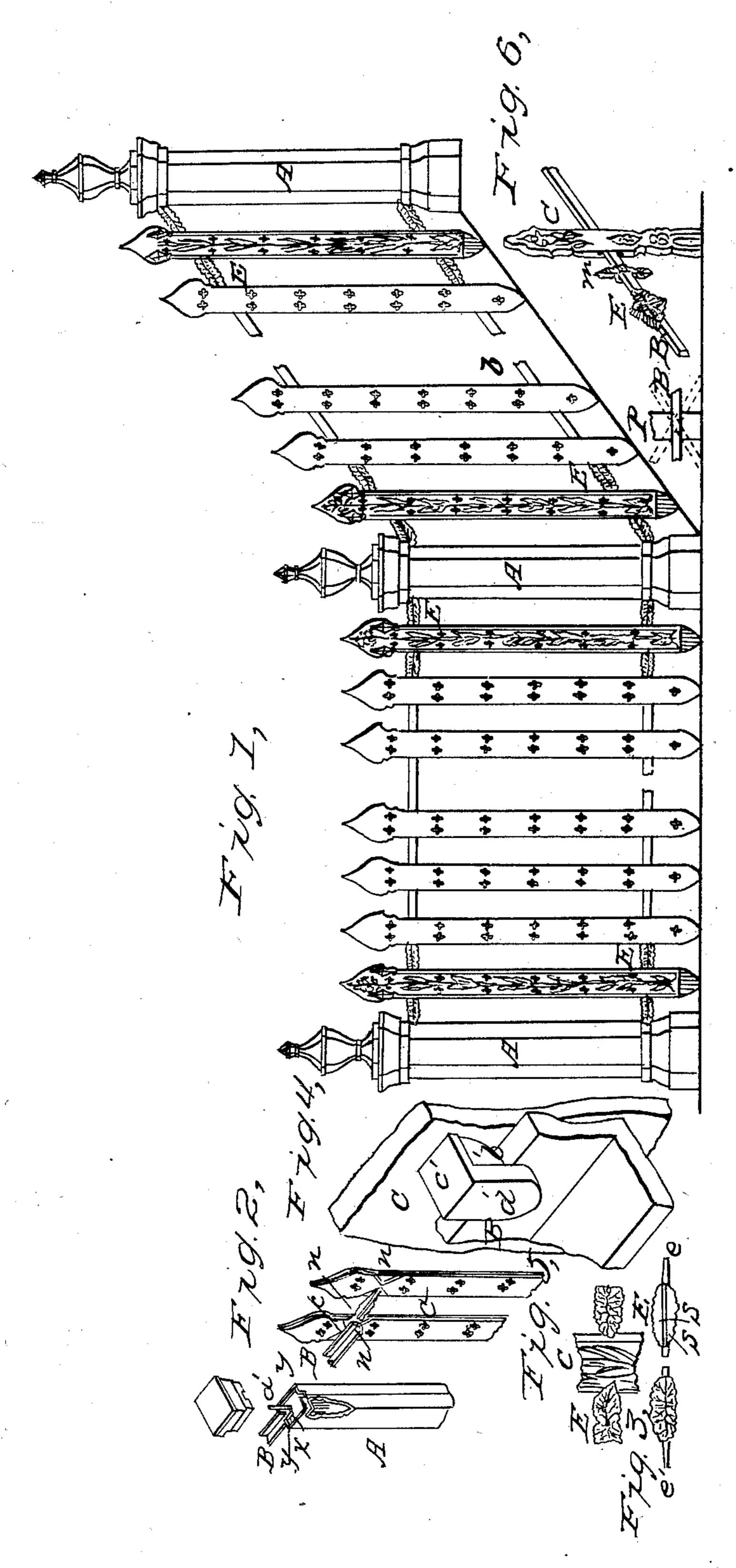
## M. P. COONS.

Iron Fence.

No. 11,931.

Patented Nov. 14, 1854.



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## UNITED STATES PATENT OFFICE.

MATTHIAS P. COONS, OF BROOKLYN, NEW YORK.

## MULTIGRADE IRON FENCE.

Specification of Letters Patent No. 11,931, dated November 14, 1854.

To all whom it may concern:

Be it known that I, Matthias P. Coons, of the city of Brooklyn, in the county of Kings and State of New York, have invented a new and valuable Improvement in the Construction of Cast-Iron Fences by which the same are rendered adaptable to any incline or undulation of ground surface without previous and special construction or provision therefor; and to enable others to use this improvement I have in the annexed specification described its nature in detail.

The principal object I wish to attain by this invention is a device for the construc-15 tion of a cast iron multigrade fence or railing admitting of various designs and at the same time adaptable to the various grades of surfaces upon which fences and railing are required and at the same time without 20 any additional expense for its manufacture or erection, and thus become an article of merchandise for transportation requiring no extraordinary mechanical skill or ingenuity for its construction; also by adopting 25 the principles of attachment of panels or rails to a post as heretofore secured to me by Letters Patent. This fence will also be flexible adapting itself to all usual variations of course.

Reference being had to the annexed drawings it will be seen that I may use angle, flat bar, square, or round iron for the construction of this class of fence but prefering however the flat bar iron for bars or rails.

Figure 1 represents a front elevation of two "broken" panels of fence as they would appear the one on a level and the other on an incline.

Fig. 2 is a perspective rear view of a portion of a post, for convenience represented square. a' the top pin for cap; y y pins on coupling plate with section of bar on rail attached; B and C, rear view of pickets attached and arrangements of intervening chocks showing also by n, n, the arrangement when clutch C is used on angle iron bars.

Fig. 3 E, E, C, S, S, &c., is a front view of chock showing the connection by tongues thereon.

Fig. 4 is a perspective rear view of clutch

for angle iron. Fig. 6 is the perspective view of the arrangement of this invention when a flat 55 square or round bar is used but for convenience a square bar is represented. C the picket or banister in which is a slot or mortise of the shape and form as represented by the lines marked P being a section of a 60 picket. The lines represent a bar passing through it at right angles. The dotted lines represent the variations of elevation of said bar within said mortise and which mortise is of the form and proportion shown by said 65 lines. Letter M is a collar with a mortise fitting the bar and when in its place is against the picket this mortise is knifeedged; E is a sleeve and may be of any desired form or configuration having a mortise 70 of size and form fitting the bar and also having tangs at each end. This sleeve E when in its place is brought up to the collar, M, and its tangs enter into cavities made for the purpose in the collar M.

Thus in the erection of this fence the bar or rail passing through the mortise of picket C the one end of which is secured in the post (now using two bars as represented by Fig. 1) The collar M is first slipped 80 on, then the sleeve E, then the collar M again; then a picket, then again the collar and sleeve alternate until the panel is complete, when the bars at the opposite end are placed in their proper places in the post A 85 Fig. 1, which when completed will adapt itself to undulated surfaces, and as will be seen is also conveniently fitted to any required distance or source.

quired distance or course.

Having thus described the nature of my 90

invention what I claim and desire to secure by Letters Patent is—

The combination of the devices as represented by Fig. 6 the form of mortise in picket C as represented by P and the collar 95 M and sleeve E in the manner and for the purpose subsantially as herein set forth and described.

MATTHIAS P. COONS.

In presence of—
John G. Hammond, Jr.,
C. W. Henry.