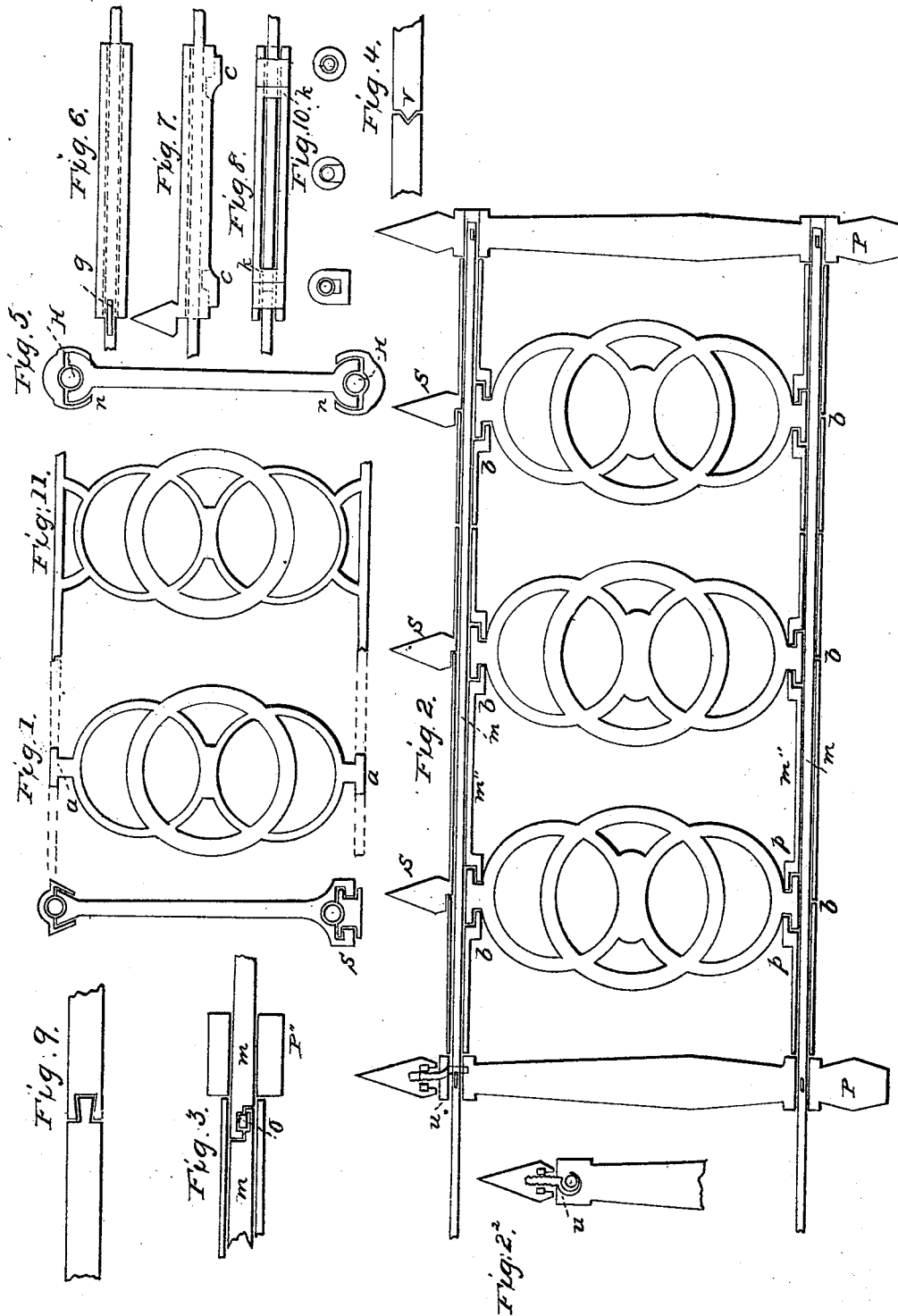


KRAUSER, CROWELL & KRAUSER.

Iron Fence.

No. 7,774.

Patented Nov. 12, 1850.



UNITED STATES PATENT OFFICE.

JOHN KRAUSER, SOMMERS CROWELL, AND CYRUS KRAUSER, OF READING,
PENNSYLVANIA.

IRON RAILING.

Specification of Letters Patent No. 7,774, dated November 12, 1850.

To all whom it may concern:

Be it known that we, JOHN KRAUSER, SOMMERS CROWELL, and CYRUS KRAUSER, of Reading, in the county of Berks and State of Pennsylvania, have invented a new and Improved Mode of Constructing Cast-Iron Railings; and we do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification.

In the accompanying drawings, Figure 1 represents one of the palings employed to form an entire section of railing. The paling for this purpose being cast with a foot or lug at the top and bottom as shown at *a a* (and in order to combine and properly secure any number of palings so as to form a section of railing, we take a number of separate tubes each tube having at one of its ends a half shoe, a side view of said shoe with the foot of the paling in it is shown at *p, p*, and the same with the other palings). Fig. 2, a sleeve or socket or any analogous device on any part of the tube will answer the same purpose when it is desirable to place the paling at a greater distance apart than the tubes having the shoes will admit of, then small separate tubes (by which means also the positions of the palings may be varied) can be placed between the same and cover that part of the rod which otherwise would be exposed to view. These tubes are strung on iron rods *m, m*, Fig. 2, with the ends having the half shoes joined together as represented at *b, b, b, b, b, b* (same figure). The figure represents a front elevation of a section of railing together with the posts used in the construction of the same. When the tubes are thus arranged on the iron rods each paling is taken separately and the tubes being pushed apart a small distance its foot is entered into a half shoe and brought parallel to the iron rod. The other tube with the other half shoe is then pushed up from the opposite direction so as to come in contact with the other tube and inclose the remaining half foot of the paling. Each paling is in this way secured at the top and bottom to the several tubes and after a sufficient number of palings are thus secured the tubes are butted one against the other so as to hold the different palings securely in their appropriate positions in the railing. By making a recess like a V in one end and

a corresponding projection in the end of the tube butting against this as shown at V, Fig. 4, it is apparent that the sides of the tube will always be kept uniform where they join together and thus prevent any unworkmanlike appearance. Any device similar to a V will subserve the same end. By using a continuous tube formed of any number of tubes, of any required length the palings are not only kept in their proper places, but the iron rods *m, m*, Fig. 3, which are always of a much smaller diameter than the tubes are hid from view (they are seen however in the drawing for the sake of showing the construction more plainly) by which means the railing presents a much neater and better appearance; it also precluding the necessity of chipping or cutting when in a continuous railing one section requires to be shorter than another. The iron rods are fastened at one end to the post *P''* by inserting said ends into holes made for that purpose in the post and driving a pin or key through a hole in the post and ends of the rods at right angles to the former. The other ends of the rods may either pass through the next post and be made to lap some distance over the succeeding rods (like a scarf in carpentry) and fastened with a key driven through a hole in the tube which covers this joint and an aperture in the joint itself for this purpose as shown at O, Fig. 3, *P''* being the posts or they may be fastened by putting a key through the post, the same as the pin before described. The keys used in one or both ends of the rods have sufficient draft given them so that when driven home they draw the posts *P'', P''*, toward each other so as to wedge the tubes one against the other thus rendering the railing perfectly stiff and its ability to resist lateral and downward pressure very materially increased. The top ornaments *s, s, s*, are cast either in whole to one end of the tube as represented or cast in halves to each tube. The similar ornaments belonging to the top of the posts we fasten as shown at *u*, Figs. 2, 2², the ornament having a nut cast in its base or simply a hole which is tapped so as to fasten it down by means of the hooked bolt *b* the hook of the bolt taking hold of the upper rod *m*, in the post as seen in the drawing instead of using an iron rod running down the whole length in the center

of the post and made fast at the bottom as has been done heretofore. The foot or lug cast to the paling may project out each way so as to join the corresponding projection of the foot of the next paling as shown by the dotted lines in Fig. 1, which join the lugs of Fig. 11, and the tubes will have a longitudinal slot through their whole length so as to admit of a passage for that part of the paling to which the foot is attached as shown at *n, n*, Fig. 5, which figure represents a transverse section of the tube iron rods *H, H*, and paling. The foot is represented in the figure as corresponding in its form to the inner form of the tube which is semicircular in this case, the top of the foot butting against the roof of the hollow in the tube on each side of the rods *H H*. Fig. 11 is a paling with two arms at top and bottom. The lug is attached to both in one continuous length though it need not essentially be so as that part between the arms may be left out. When they project out so as to join the succeeding ones the lugs may be united by means of a dovetail as shown in Fig. 9, or by any other similar mechanical device. It is often desirable to have one tube to fill up the entire length on the rods between the palings so as to make no joints. *m'', m''*, in Fig. 2, are two tubes of this kind without a joint between the adjoining palings. The tubes may be made with a slot in only part of their length. Figs. 6, 7 and 8 are a top, side and bottom view of such tubes, the inner dotted lines being the

iron rod. *g*, in Fig. 6, is the base of the top ornament *S*, in Fig. 2. *c, c*, in Fig. 7, are side views of the half shoe and *K K*, in Fig. 8, show the extent of the slot. Fig. 12 represents a mode of securing the paling by using a slotted tube at the top similar to Fig. 5, the hollow for the passage of the iron rod as in said figure being in part in the tube and part in the foot of the paling. The lower part of the tube in this case approaches to the form of the letter *V* and the foot is made to fit a similar hollow in it. The external form of the tube may be greatly varied so as to serve the purposes of ornament and for the same end the foot at the bottom of the paling being cast in the form of a stirrup as represented at *S* in the figure, which is a transverse section of the parts mentioned, may be made to embrace a square cast iron bar of the required length having a square recess in each side in its whole length which gives to it a form analogous to the letter *H*.

What we claim as our invention and desire to secure by Letters Patent is:

The combination of the rods, tubes and palings with the manner of operating the same as herein set forth and described.

JOHN KRAUSER.
SOMMERS CROWELL.
CYRUS KRAUSER.

Witnesses:

DAVID MEDARY,
JAS. MCKNIGHT.