

F. F. Sommer. Iron Fence.

No 92,118.

Patented Jun. 29, 1869.

Fig: 1.

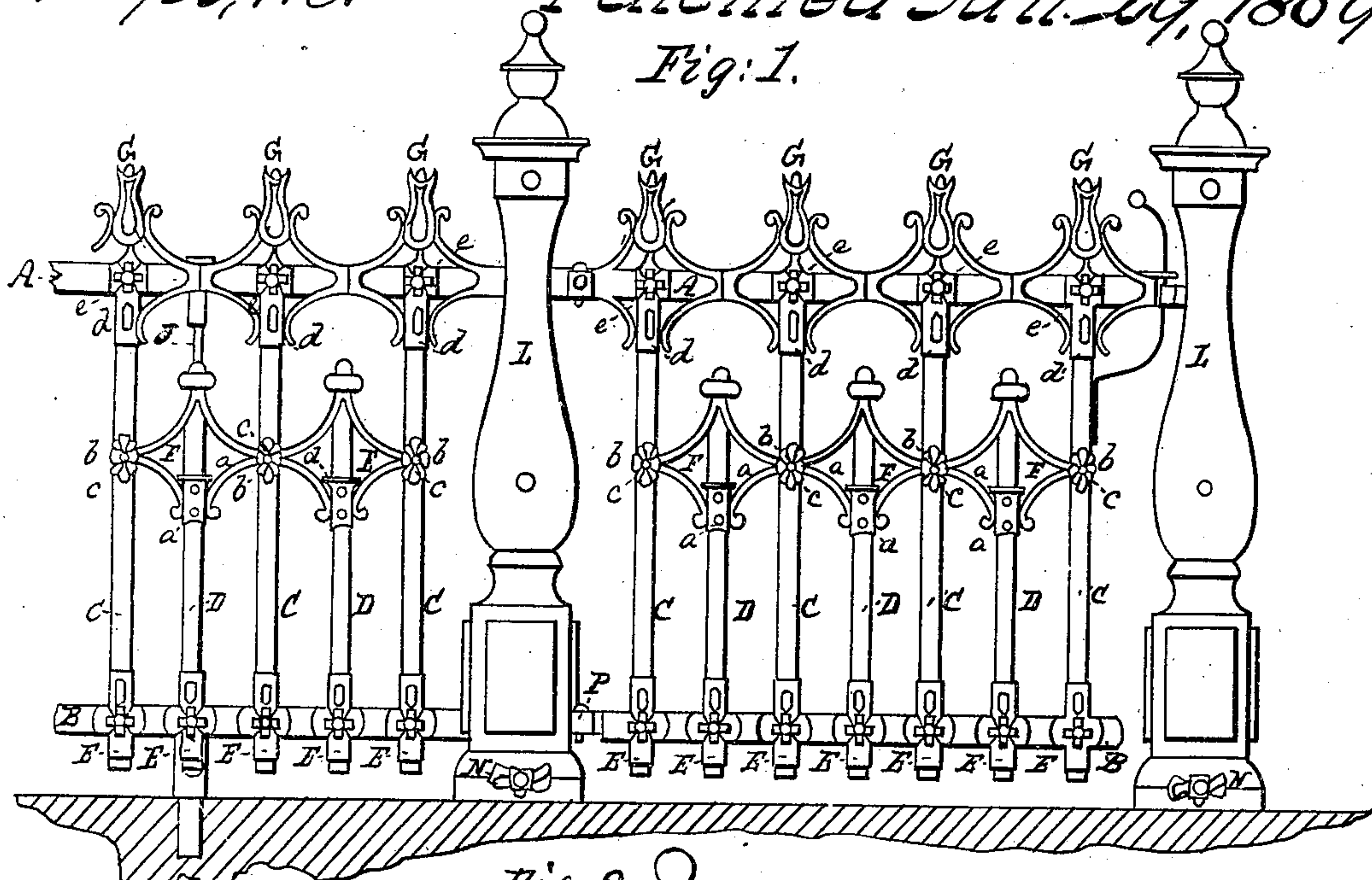


Fig: 2.

Fig: 14.

Fig: 15.

Fig: 6.

Fig: 5.

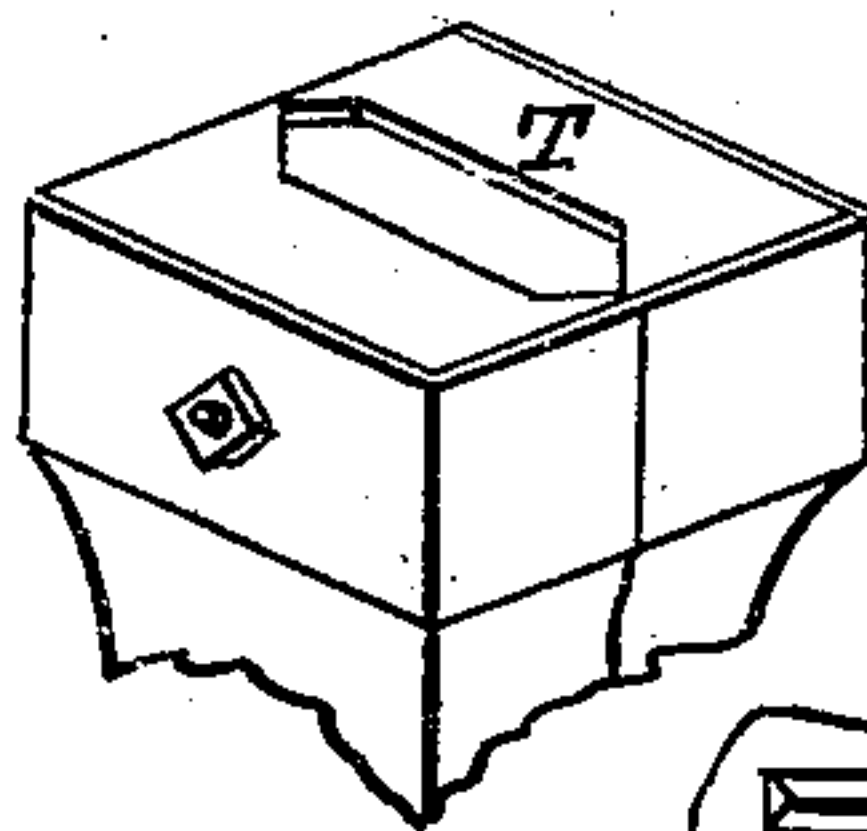
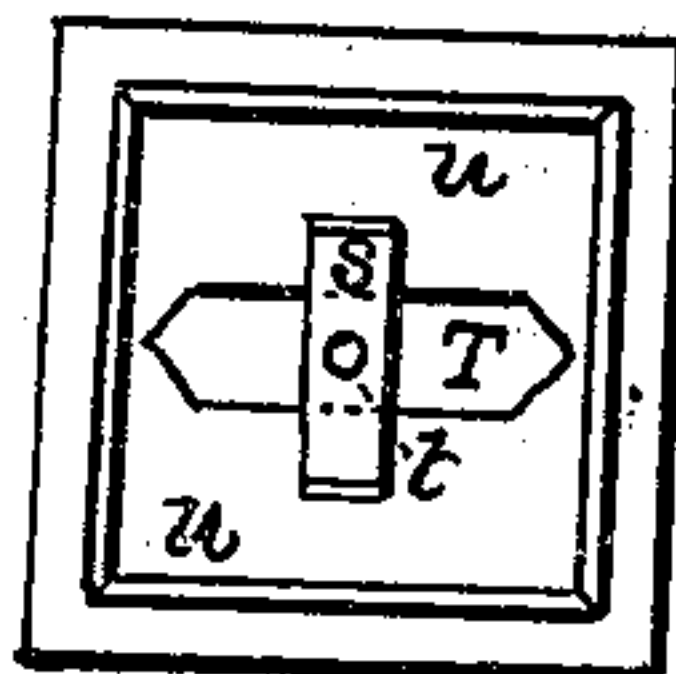
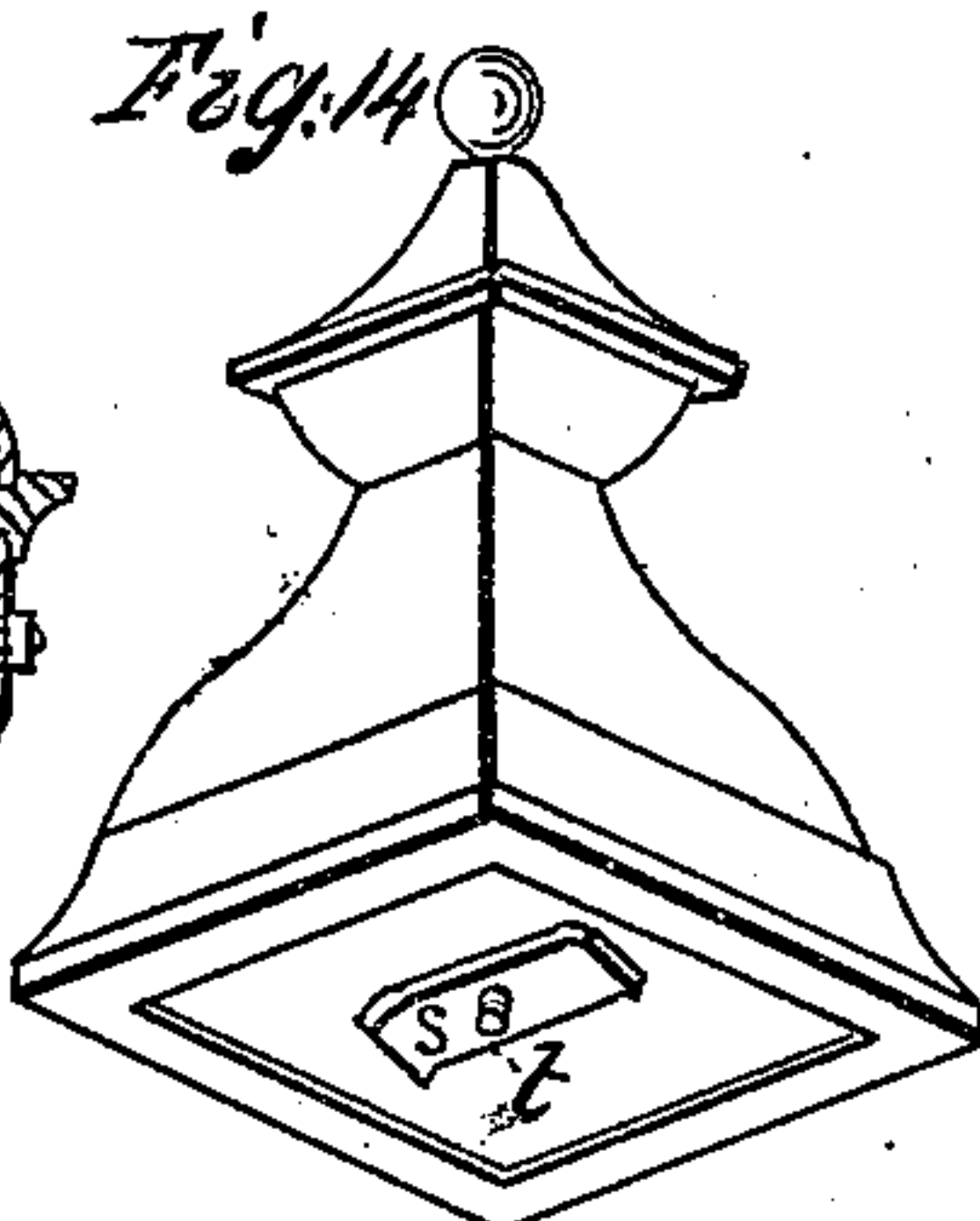
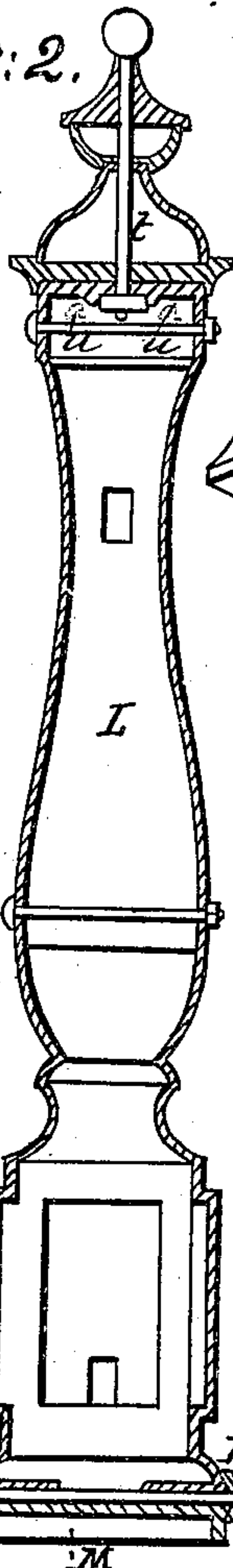
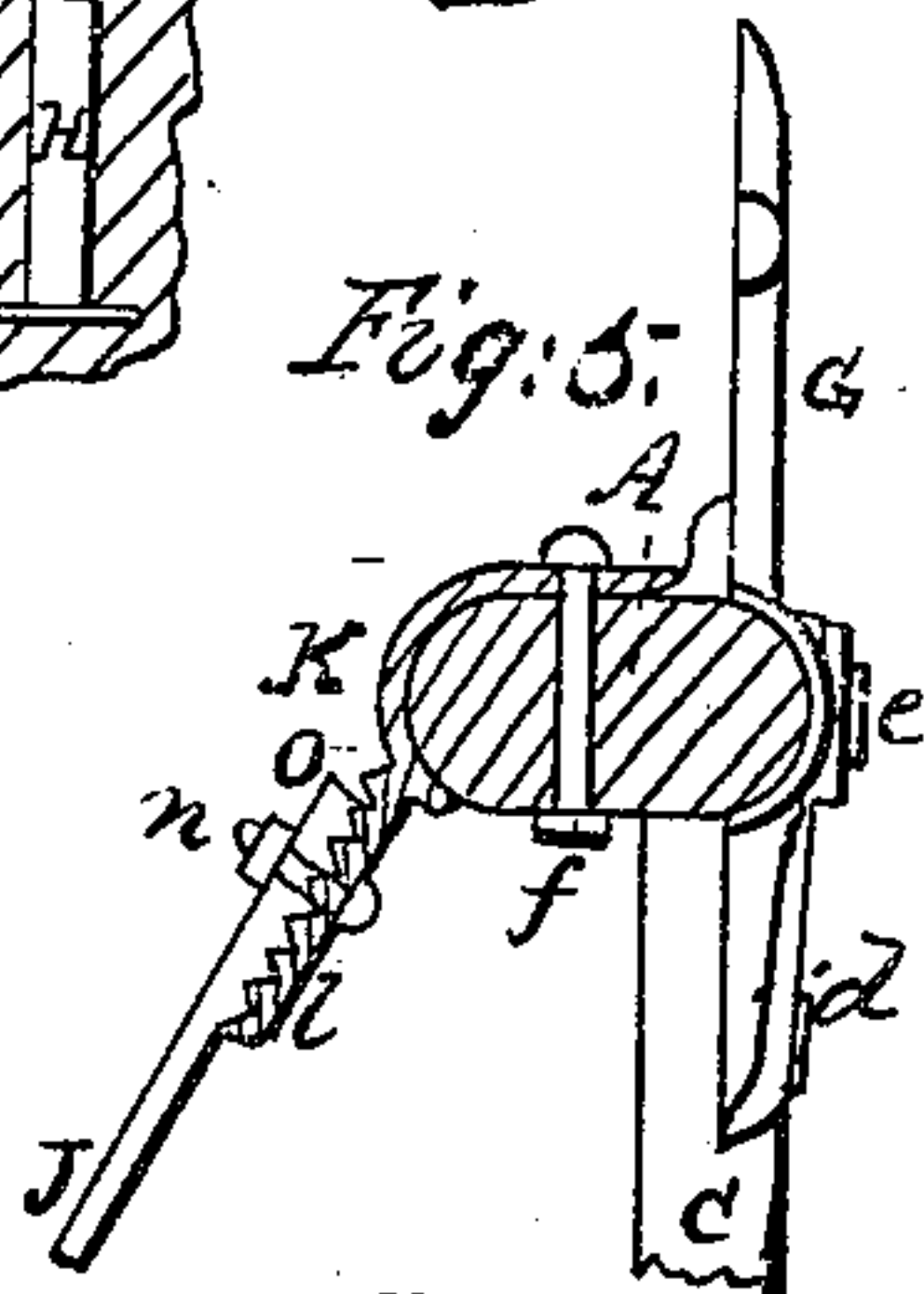
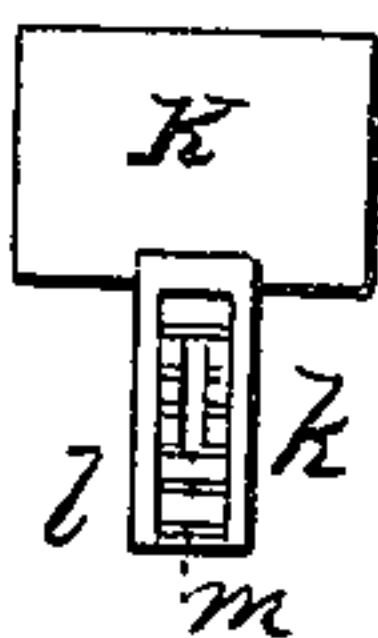


Fig: 13.



Fig: 7.

Fig: 8.

Fig: 9.

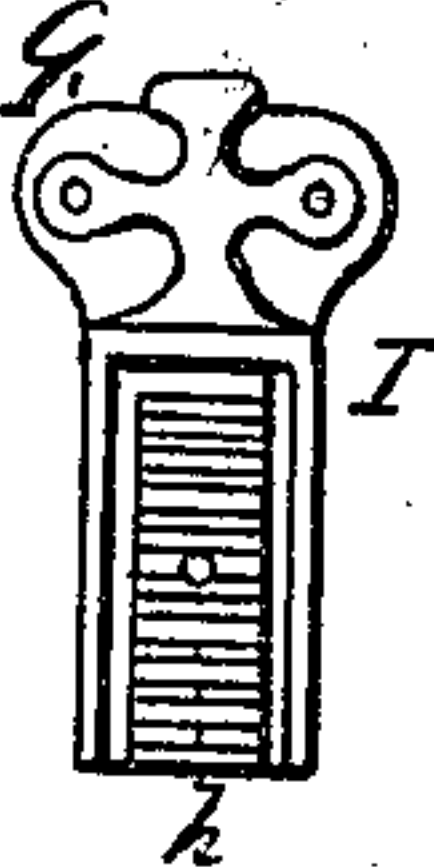
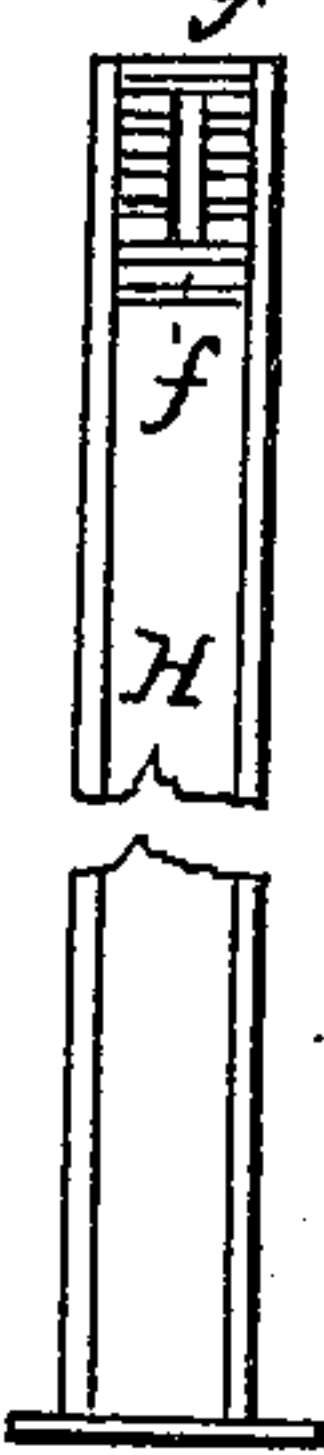
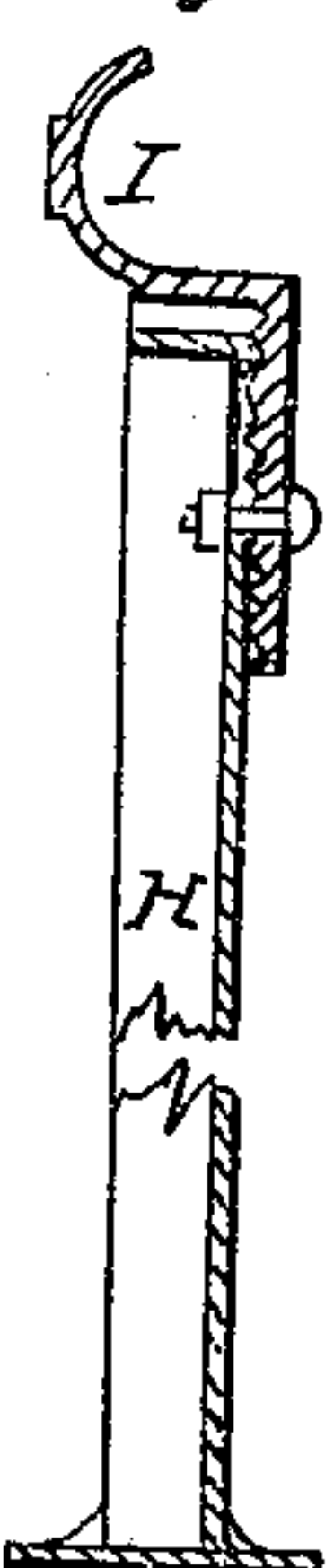


Fig: 3.

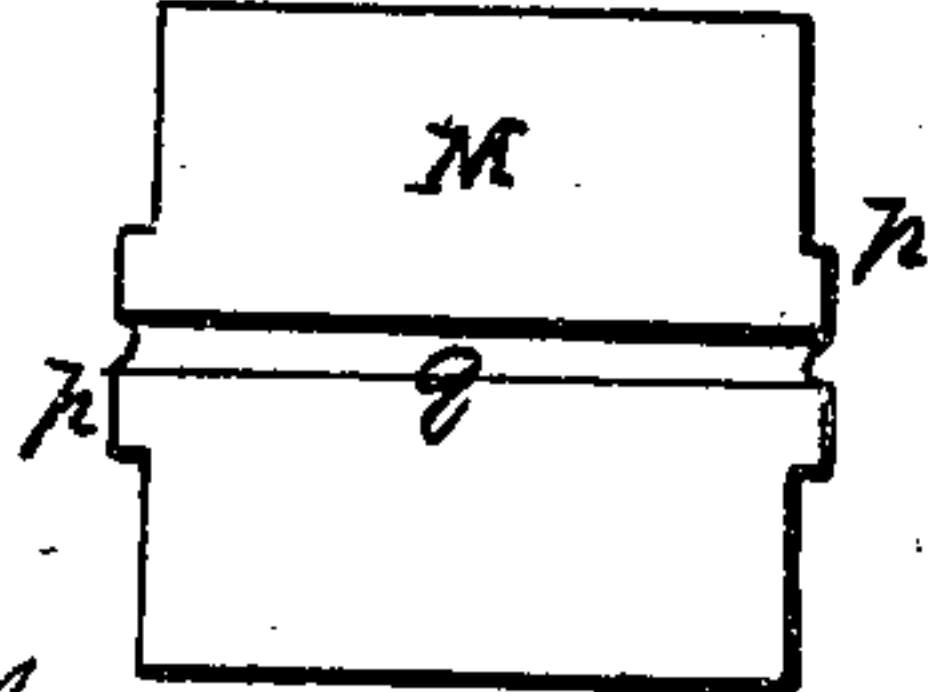
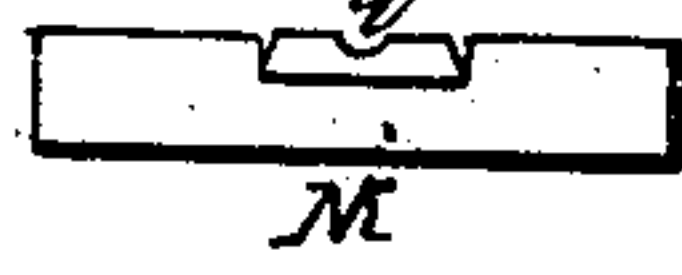


Fig: 4.



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Letters Patent No. 92,118, dated June 29, 1869.

IMPROVEMENT IN FENCE.

The Schedule referred to in these Letters Patent and making part of the same.

To whom it may concern :

Be it known that I, FRANK F. SOMMER, of Detroit, in the county of Wayne, and State of Michigan, have invented a new and useful Improvement in Combination-Fence; and I do declare that the following is a true and accurate description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, and being a part of this specification.

The nature of this invention relates to an improved construction of fences, the posts of which are of iron, and its rails and pickets of wood, the primary feature being the employment of a series of wooden pickets, and between said pickets a series of intermediate pickets of lesser height, secured to the longer pickets by ornamental cast-iron braces, as are also the longer pickets to the rails, and while presenting a light, open, and elegant appearance, the spaces between the pickets in the lower part of the fence are not sufficiently great to permit dogs and other small animals to pass through between the pickets.

Secondly, in a peculiarly-constructed foundation for supporting the panels of the fence, by means of which said panels may be brought to a horizontal plane without digging up or disturbing the foundation.

Thirdly, in a peculiar manner of fastening the gate and corner-posts to their foundations, and in the manner of securing the caps to the body of the posts.

Also, in the general arrangement of its parts, in which it will be noticed that no metal is employed solely for ornament, but that every part serves to strengthen the whole.

In the drawings—

Figure 1 is an elevation of a section of my improved fence and gate.

Figure 2 is a cross-section of one of the posts.

Figure 3 is a top view of the foundation-plate of the posts.

Figure 4 is a front elevation of the same.

Figure 5 shows the construction and method of securing the adjustable brace to the upper rail.

Figure 6 is a plan view of the adjustable brace-plate of the upper rail.

Figure 7 is a vertical section of the adjustable metallic foundation-post.

Figure 8 is a front view of the same.

Figure 9 is a view of the foundation-connecting-plate.

Figure 13 is a view of the rear side of the plate connecting the base of the post to the foundation.

Figure 14, sheet 2, is a view of the bottom of the post-cap, showing the elongated nut, and also a view of the top of the post, showing the slot.

Figure 15, sheet 2, is a cross-section of the post, showing the under side of its top.

Like letters indicate like parts in each figure.

A, in the drawings, represents the upper, and B, the lower rails of a section of my improved fence.

C are pickets, which may be either round, as shown, or of any suitable form, while D are shorter pickets, placed intermediately between the pickets C.

E are cruciform plates of thin cast-metal, convex on their outer, and concave on their inner surfaces, to conform with the contour of the rail and pickets, proper screws passing through them into the lower rail B, to secure the lower ends of all the pickets to said rail, into which they are partially recessed.

F are open *intaglio* plates of cast-metal, of such lengths that their ends will extend from centre to centre of the full-length pickets, each plate abutting against the end of the adjoining one. These plates are cast to conform on their rear sides to the shape of the pickets, their lower central parts being secured to the short pickets by one or more wood-screws *a*, a rosette, *b*, covering the ends of the plates, and secures them to the pickets C, by a wood-screw, *c*, passing through it into the picket, a half notch being cast into the ends of the plates for that purpose.

G are *intaglio* plates, constructed upon the same general plan as the plates F, with the exception that each has a vertical central rib, *d*, to the lower part of which the upper end of the picket C is secured, by a screw, said picket being partially recessed into the upper rail of the fence.

The plates are secured to the rail, by a screw, *e*, passing through the upper part of the rib *d* into the rail, dispensing with the usual coupling-plates or rosettes at the ends of said plates. In this manner, panels of fence, of any desired length, may be constructed.

To sustain and support the fence at proper distance apart, I place in the ground, and attach to the lower rails B, the metallic foundation-posts H, whose construction and arrangement, shown in figs. 7, 8, and 9, I will now proceed to describe.

H is a foundation-post of cast-iron, provided with an enlarged base, as shown, for increasing its stability.

The upper front part of this post is formed with serrations *f* and a vertical slot, *g*, fig. 9.

I, fig. 7, is a clamp-plate, with its upper part so formed as to embrace the rear side of the rail B, to and through which it is bolted, while its inner lower part is serrated, as shown at *h*, fig. 9, to engage with the serrations *f* on the post, while a bolt, *i*, passing through it and the slot *g*, securely binds them together.

To adjust the fence vertically, by loosening the nut on the bolt *i*, the clamp-plate may be moved up or down in the slot in the post, until the fence is level, when it may be there secured by screwing up the nut.

As all foundations are liable to settle in the ground by the action of the elements, and to upheaval by frost, this feature in my invention is deemed important, not only in facilitating the erection of the fence, but to permit of its subsequent adjustment, when, from either of the causes named, it may become necessary.

To brace the fence in its upright position, I attach

to the upper rail a brace, J, fig. 5. The lower end of this brace, (which should be of wrought-iron,) terminates in a flat cast-metal plate, placed in the ground below the line of post, and immediately in the rear of the post H.

K is a cast-metal clamp-plate, formed to embrace the upper and rear sides of the rail A, and is secured thereto by a bolt, *j*, passing through both.

It is also provided with a projection, *k*, having serrations *l* and slot *m*, through which passes a bolt, *n*, securing the serrated head *o* of the brace J thereto.

By this means, the fence is easily and readily adjusted to a vertical position.

L are the gate and corner-posts, the construction of which is clearly shown in fig. 2. The post is in two halves, bolted together, and provided with notches in the sides to receive the ends of the upper and lower rails of the fence.

M is a pedestal of cast-iron, in the form of a cap, which fits over a block of stone set in the ground, and is secured thereto by bolts leaded in sockets in its top, and forms the foundation of the post. The cap also prevents abrasions of the stone by the wheels of passing carriages, where double gates are used.

It is provided on its front and rear sides with a semi-wedge-shaped projection, *p*, as is also the bottom of the post.

The upper surface of the pedestal has formed in it a central transverse semicircular groove, *q*.

A similar groove is also formed in the bottom of the post.

N is a clamp-plate, having a V-shaped recess, *r*, on its under side, to embrace the semi-wedge-shaped projections on the edge of the pedestal and the bottom of the post.

A bolt, *s*, passing through the front clamp, through the semicircular groove and the back clamp, and provided with a nut, securely binds the post to the pedestal, by screwing up the nut.

The ornamental cap of the post is secured to it in the following manner: The bolt *t*, provided with a round or octagonal head, is passed through the cap; an oblong nut, S, is then partially screwed on its threaded end, the cap is then placed in position, and the nut let down through a transverse slot, T, in the top of the post, turned partially around and lifted up, which will bring the nut between the ribs *u*. The cap

is then lifted up to retain the nut in position while the bolt is being screwed into it, until the whole is firmly bound together.

I am aware that fences, composed of wood and metal, and that wooden fences, with metallic plates, for strengthening the slender parts, are not new; and while I disclaim the invention of fences composed of short pickets placed intermediately between longer pickets, all of the pickets being secured to a third or intermediate longitudinal rail,

What I do claim as my invention, and desire to secure by Letters Patent, is—

1. The construction of a fence, composed of pickets C and D, their lower ends being secured to the rail B, the upper ends of the pickets C secured to the rail A by the plates G, as described, and the upper ends of the pickets D secured to the pickets C by the plates F, thereby avoiding the employment of an intermediate longitudinal rail.

2. The foundation-post H, provided with serrations *f* and slot *g*, the clamp-plate I, provided with serrations *h*, and secured to the post by the bolt *i*, the whole attached to and forming an adjustable support for the lower rail of the fence.

3. The brace J, provided with serrated head *o*, engaging with the serrations *l* in the projection *k* of the clamp-plate K, and secured thereto by the bolt *n* passing through the slot *m* in said projection, said clamp-plate being secured to the upper rail of the fence, by the bolt *j*, the whole forming an adjustable brace for securing the upper part of the fence in its proper position.

4. The pedestal M, provided with groove *q* and projections *p*, the clamp N and its recess *r*, and the bolt *s*, in connection with a similar groove and projections in the bottom of the sectional post L, for securing said post to its foundation.

5. In sectional posts, securing the cap to the same, by means of a bolt, *t*, provided with an elongated nut, S, entering the body of the post through a transverse slot, T, and engaging with the longitudinal ribs *u*, substantially as described.

FRANK F. SOMMER.

Witnesses:

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