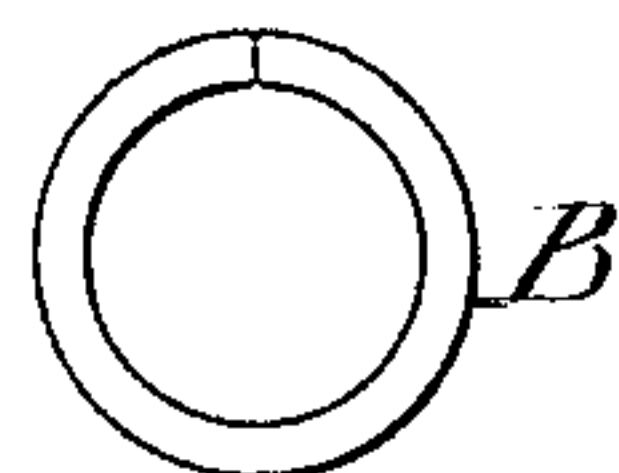
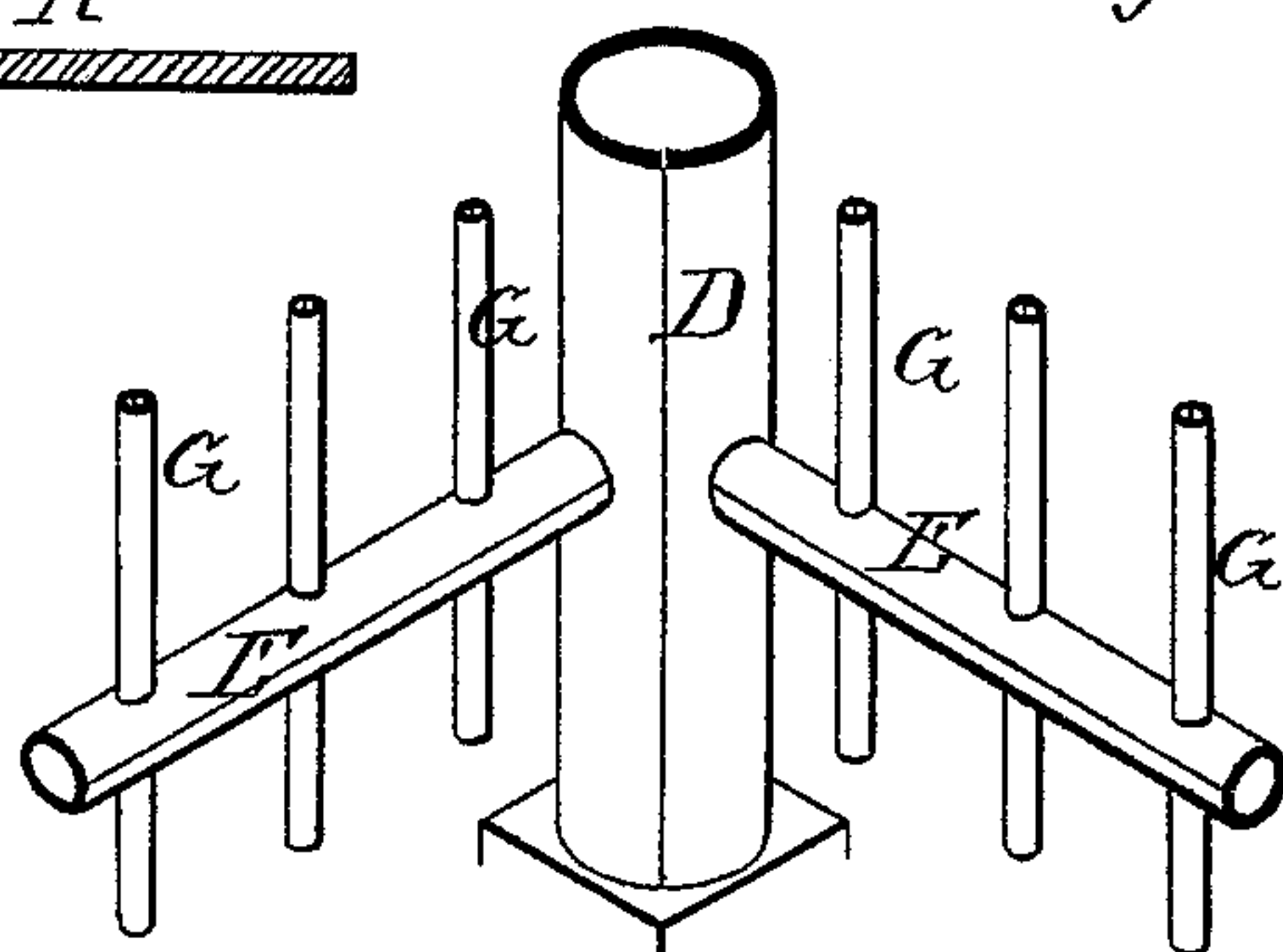
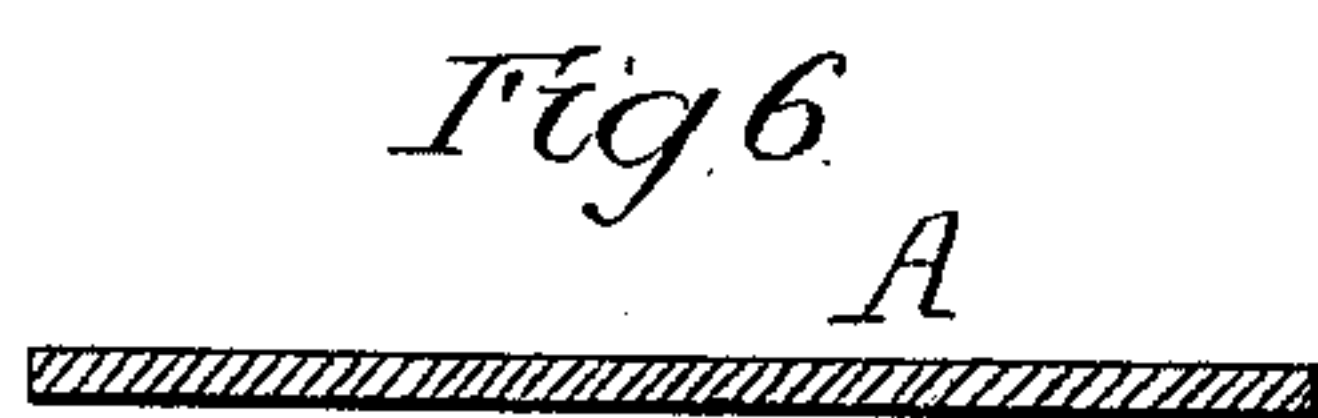
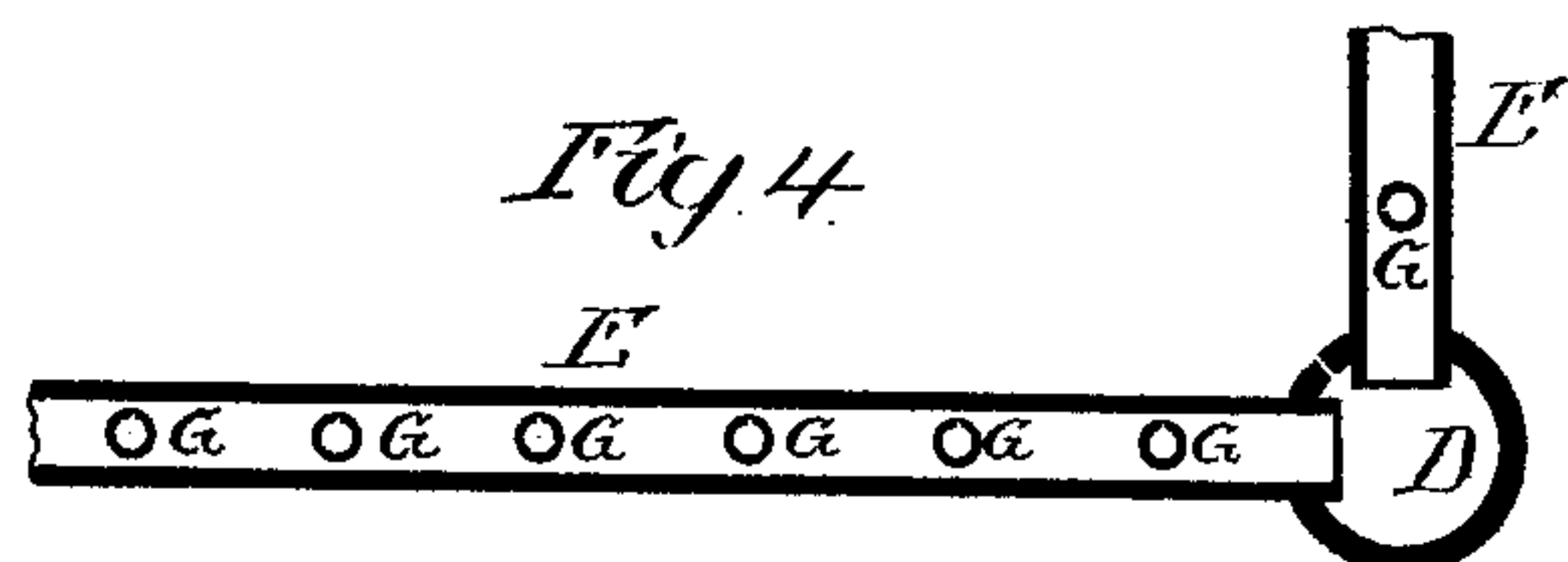
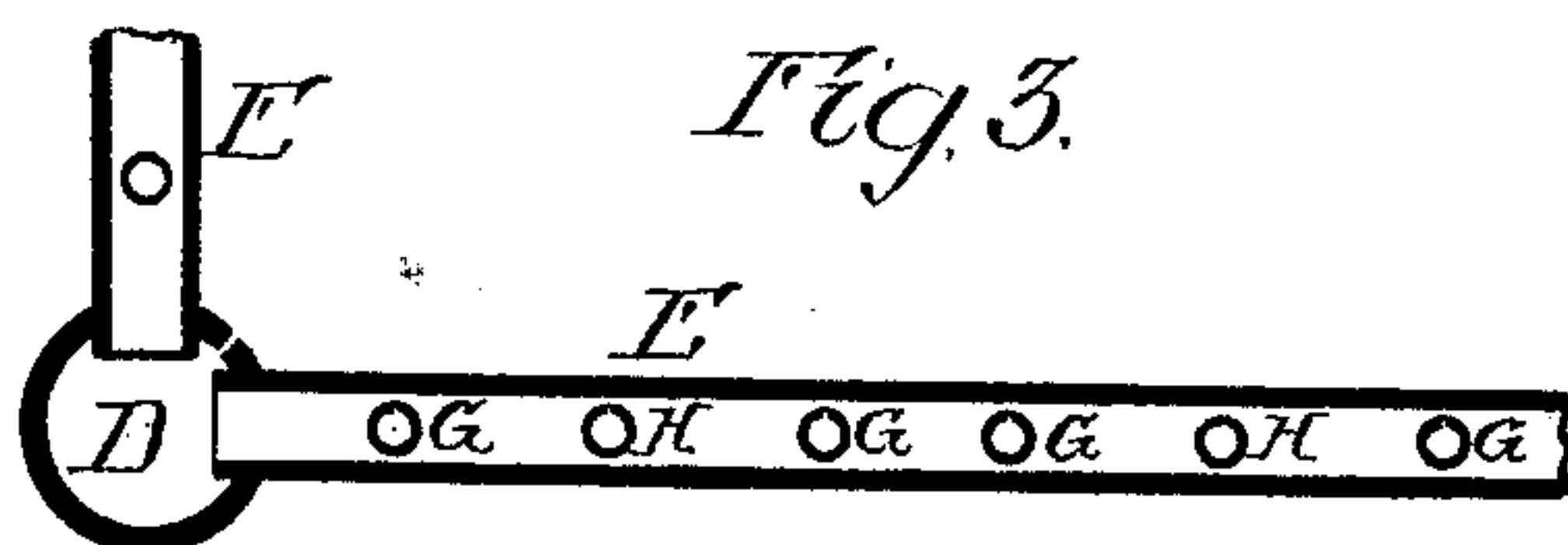
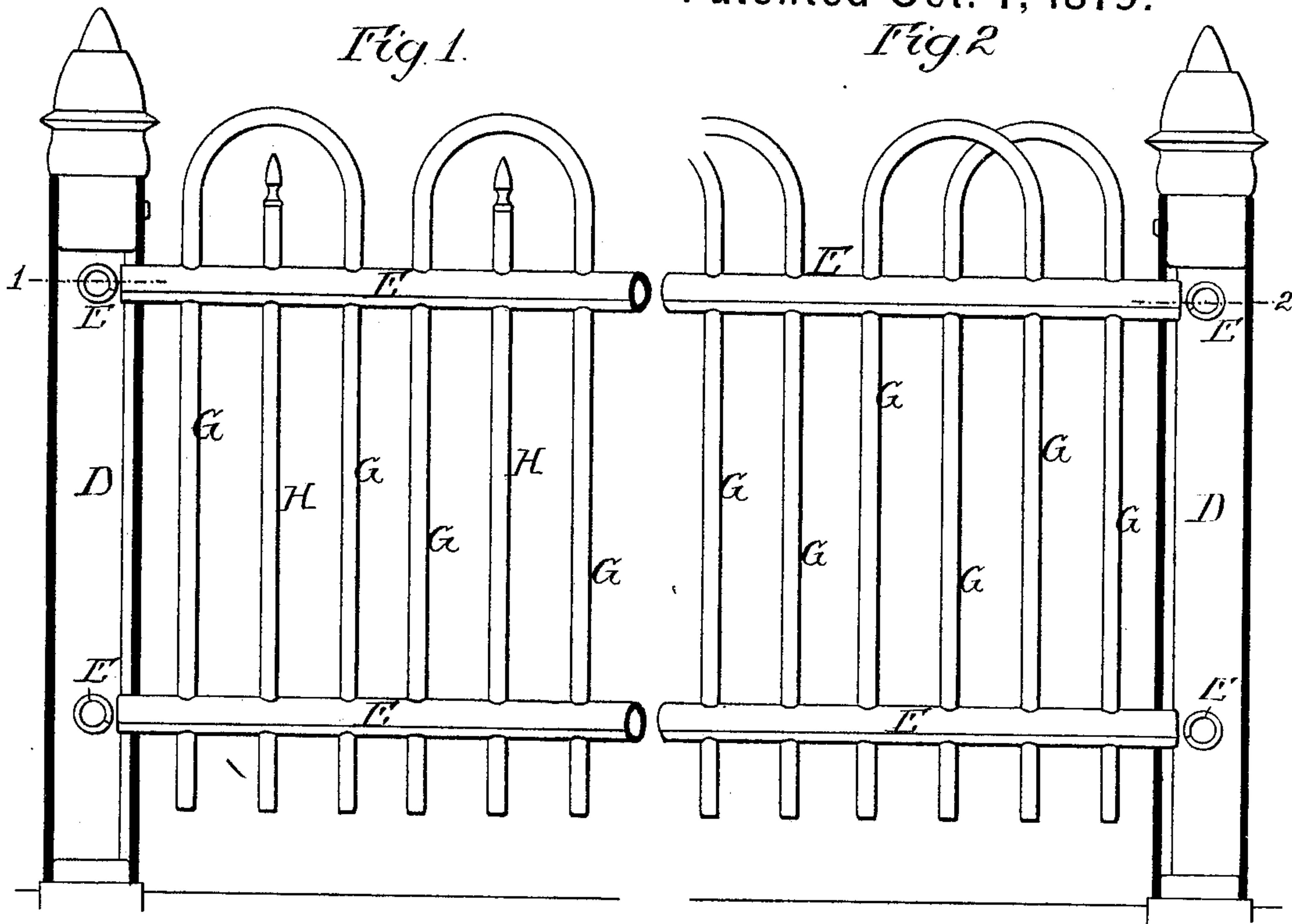


B. C. LAUTH.  
Iron-Fence.

No. 220,392.

Patented Oct. 7, 1879.



Witnesses  
Henry Bowson Jr  
Harry Smith

Inventor  
Bernard C. Lauth  
by his Attorneys  
Bowson and Son

# UNITED STATES PATENT OFFICE.

BERNARD C. LAUTH, OF PITTSBURG, PENNSYLVANIA.

## IMPROVEMENT IN IRON FENCES.

Specification forming part of Letters Patent No. **220,392**, dated October 7, 1879; application filed February 11, 1879.

*To all whom it may concern:*

Be it known that I, BERNARD C. LAUTH, of Pittsburg, Pennsylvania, have invented a new and useful Improvement in Fences, of which the following is a specification.

The object of my invention is to produce a cheap and substantial iron fence by making the whole or part of the same—that is, the posts, horizontal rails, and vertical railings—of unwelded tubes of wrought-iron, fitted together in the peculiar manner described hereinafter.

In the accompanying drawings, Figures 1 and 2 are views of my improved fence, showing the posts in section; Figs. 3 and 4, sectional plans of Figs. 1 and 2 on the line 1 2; Fig. 5, a perspective view; and Figs. 6 and 7, diagrams illustrating the kind of tubes of which the fence is constructed.

By modern machinery long strips or skelps of wrought-iron, such as the strip A, a transverse section of which is shown in Fig. 6, can be converted at a very cheap rate into a tube, B, Fig. 7, the opposite edges being simply in contact with each other.

It is only when the tubes have been subjected to the process of welding that their cost is increased, the unwelded tubes costing but little, if any, more than the skelps themselves.

I avail myself of these cheap unwelded tubes, of the great strength due to their shape, and of their trifling cost, owing to the small amount of metal required for the attainment of that strength by converting them into fences, which are but a trifle more costly than many wooden fences, and far more durable than the latter.

Fig. 1 shows part of a fence, the post D of which consists of an unwelded tube, necessarily of larger diameter and more substantial than the tubes for other parts of the fence. The longitudinal rails E E are made of similar but lighter tubes, and the railings G G and H of still lighter tubes of the same character.

The ends of the longitudinal rails of the fence are passed through holes in the posts, and may be secured by wedges, pins, or other suitable fastenings. In the same manner the tubular railings G and H are passed through holes in the longitudinal rails and properly secured to the same.

One bent tube forms two railings, G G, and between these railings are straight tubes H, the latter being surmounted by any cheap wooden ornament, so as to present, with the arched tops of the railings G G, a neat appearance. An appropriate ornament may also be fitted and secured to the top of each post.

In Fig. 2 the railings are composed entirely of bent unwelded tubes, and other arrangements of tubular railings will readily suggest themselves.

It will be seen that a fence thus composed of unwelded tubes of wrought-iron is a very substantial, rigid, and durable structure; that it can be made at a comparatively small cost, and that the parts, owing to their comparative lightness, admit of easy transportation.

The vertical railings passing through and fitting snugly in the horizontal rails tend to retain the latter in shape, and to preserve their integrity. At the same time the railings, being themselves embraced by the rails E, are retained in shape by the same. In other words, the rails and railings contribute jointly to render the structure rigid and permanent.

I claim as my invention—

The combination, in a fence, of longitudinal rails made of unwelded tubes of wrought-iron with railings composed of similar tubes which pass through and are secured in openings in the said rails, all as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

B. C. LAUTH.

Witnesses:

WM. J. COOPER,  
HARRY SMITH.