

W. W. WILCOX.

POST.

APPLICATION FILED OCT. 27, 1905.

FIGURE 1.

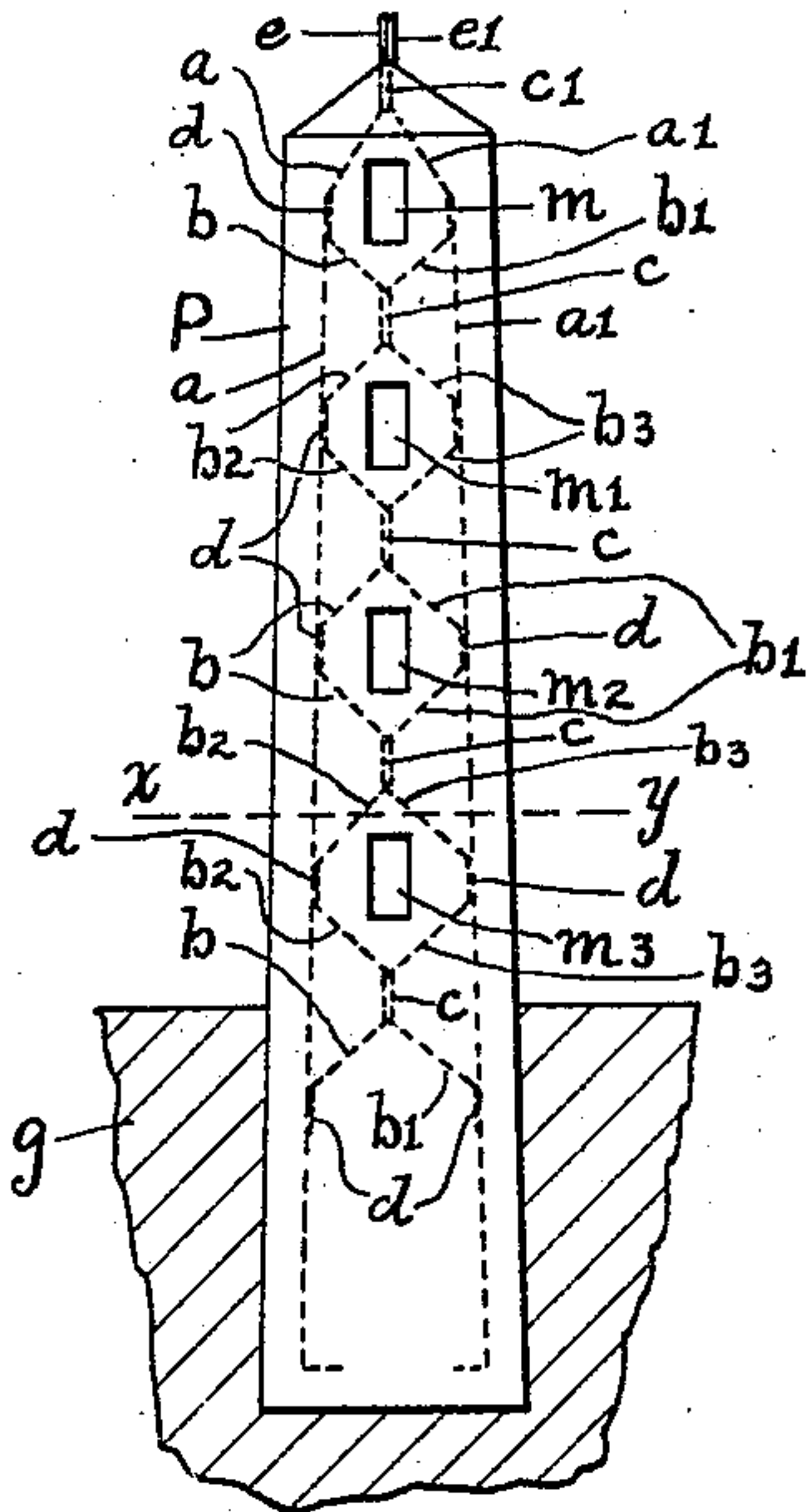


FIG. 2.

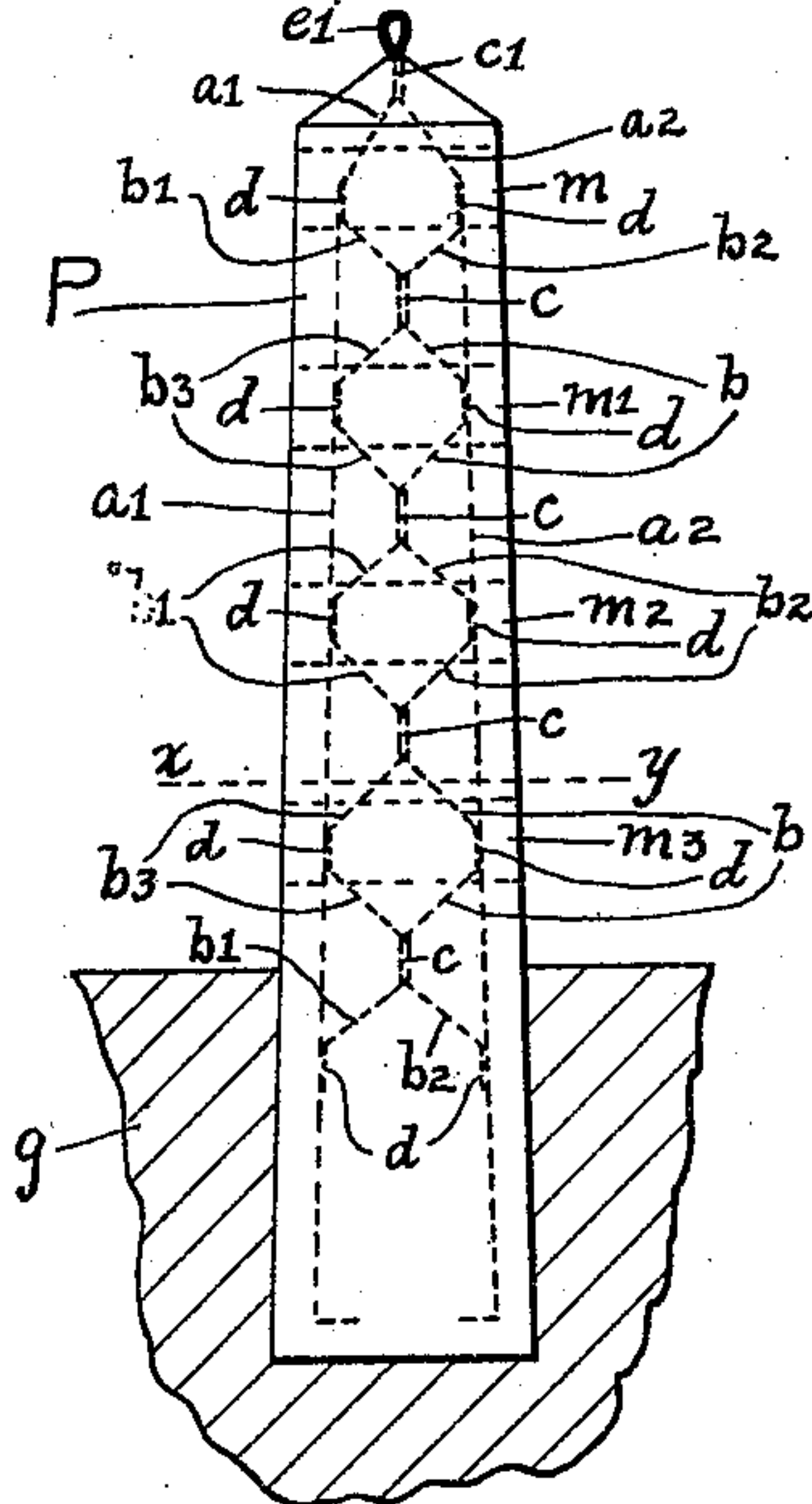


FIG. 5.

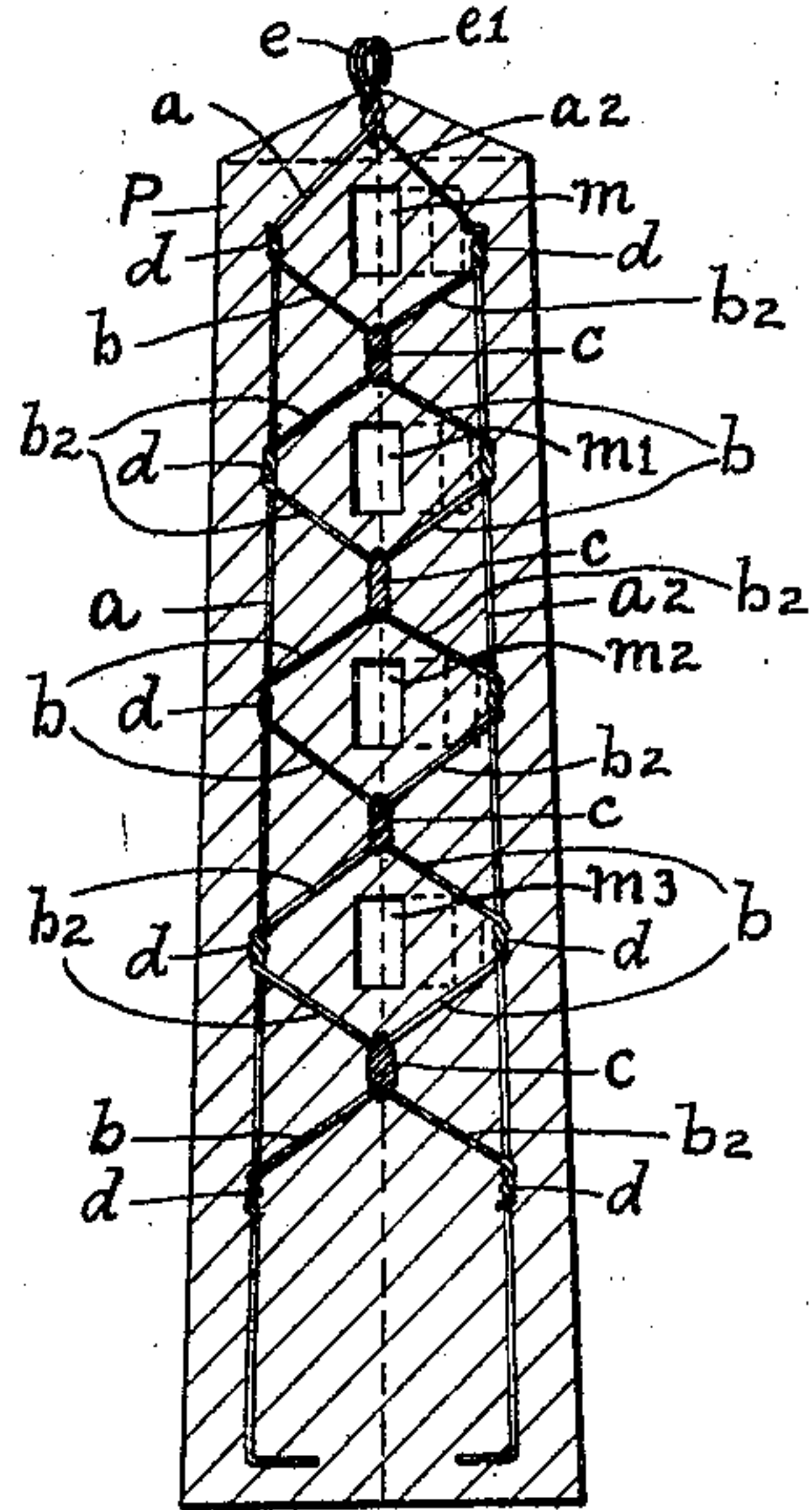


FIG. 3.

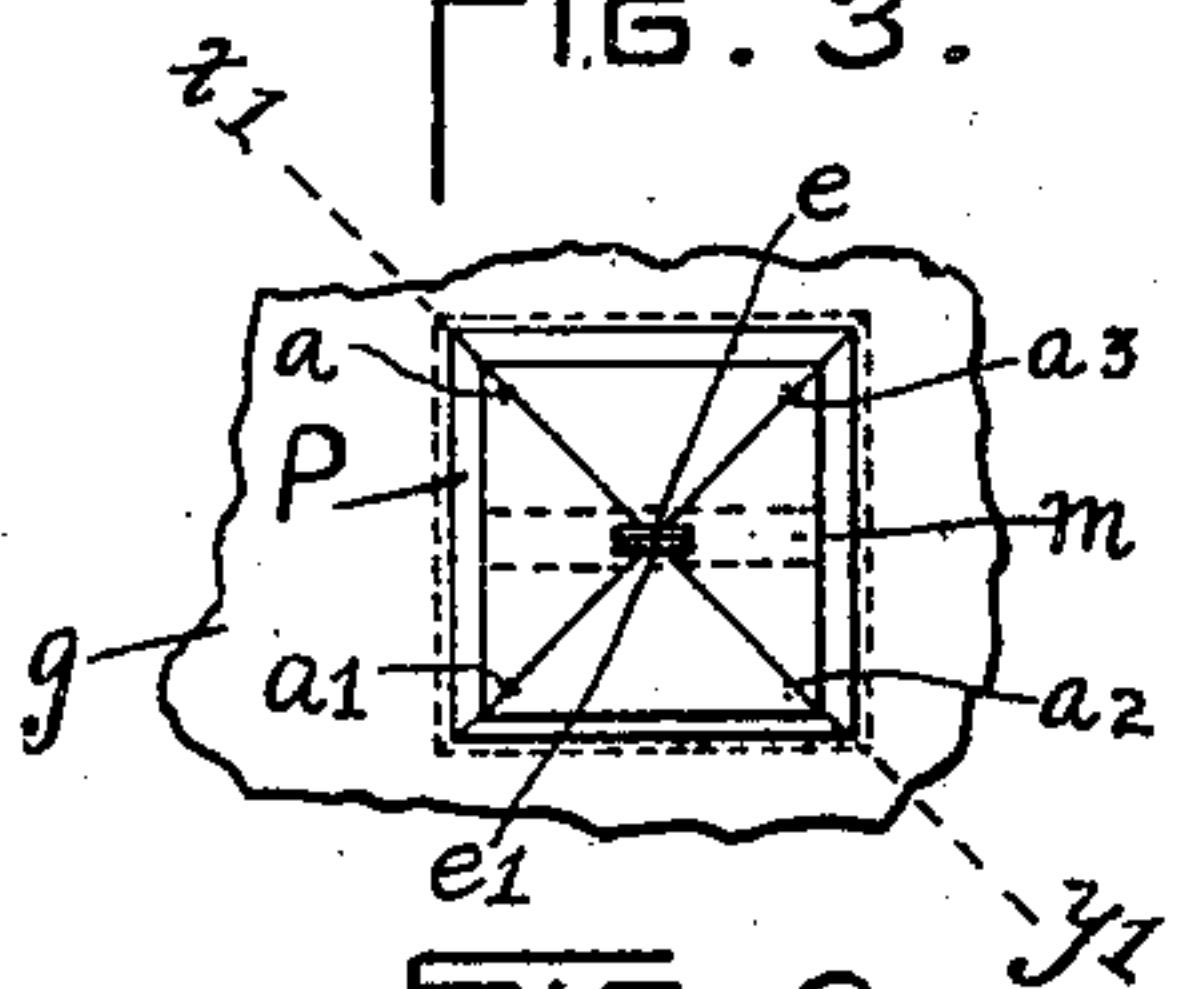


FIG. 4.

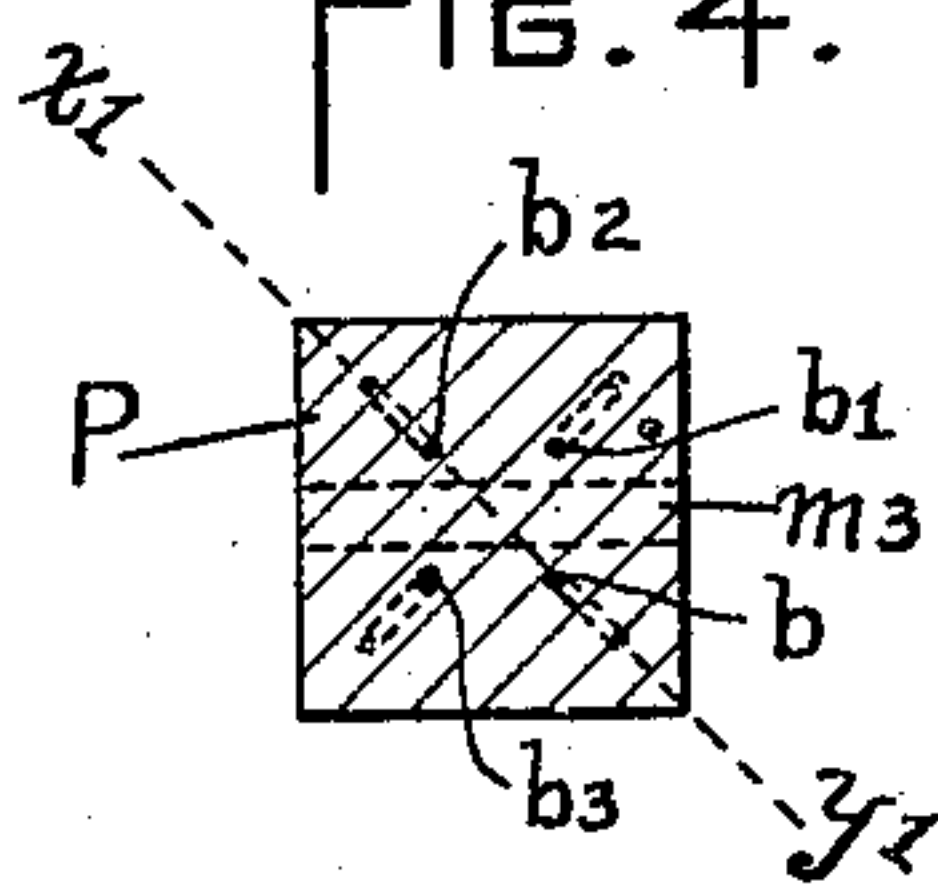


FIG. 6.

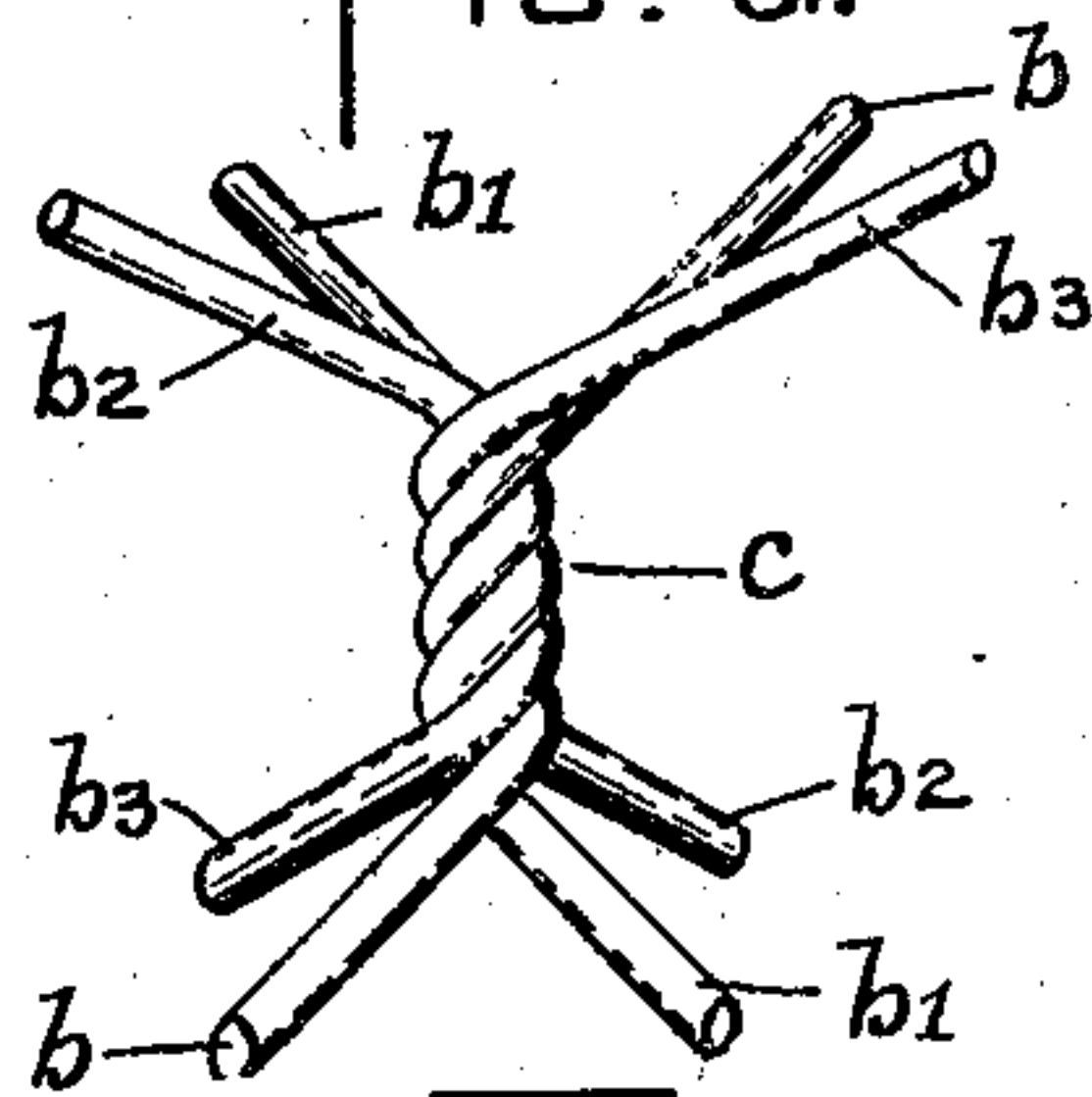


FIG. 8.

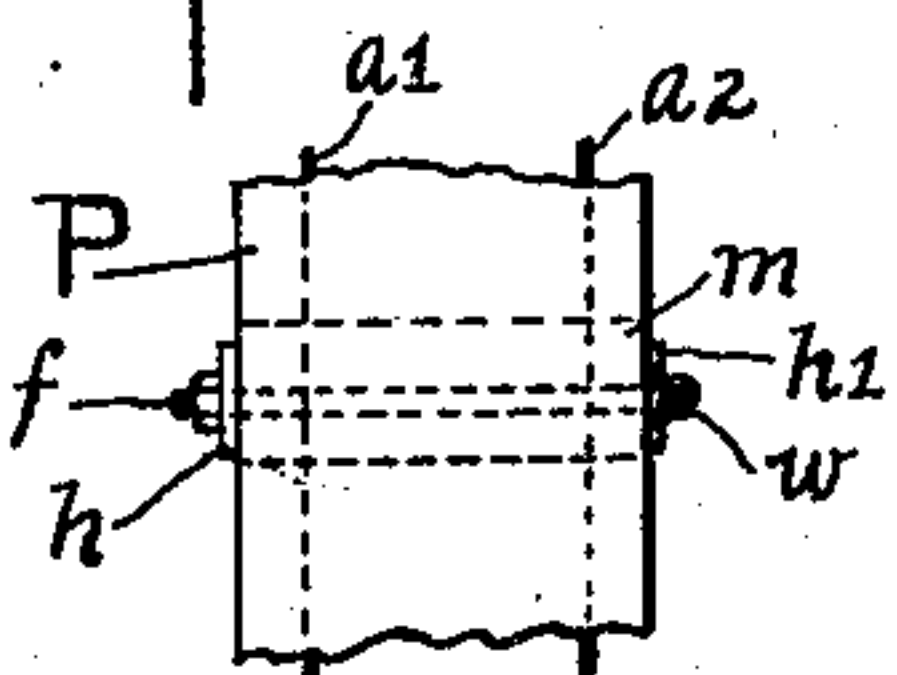


FIG. 9.

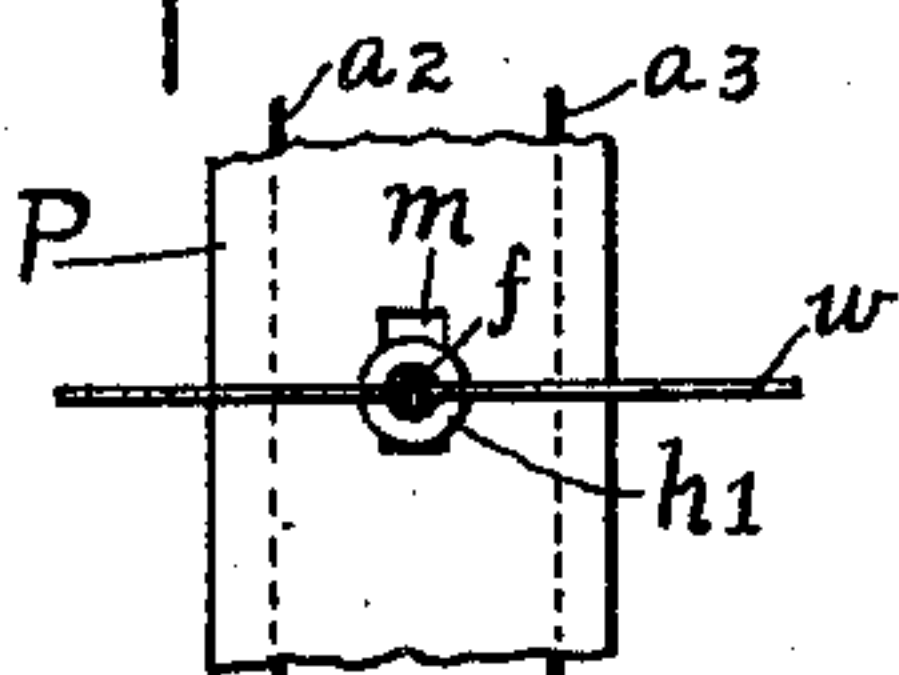


FIG. 10.

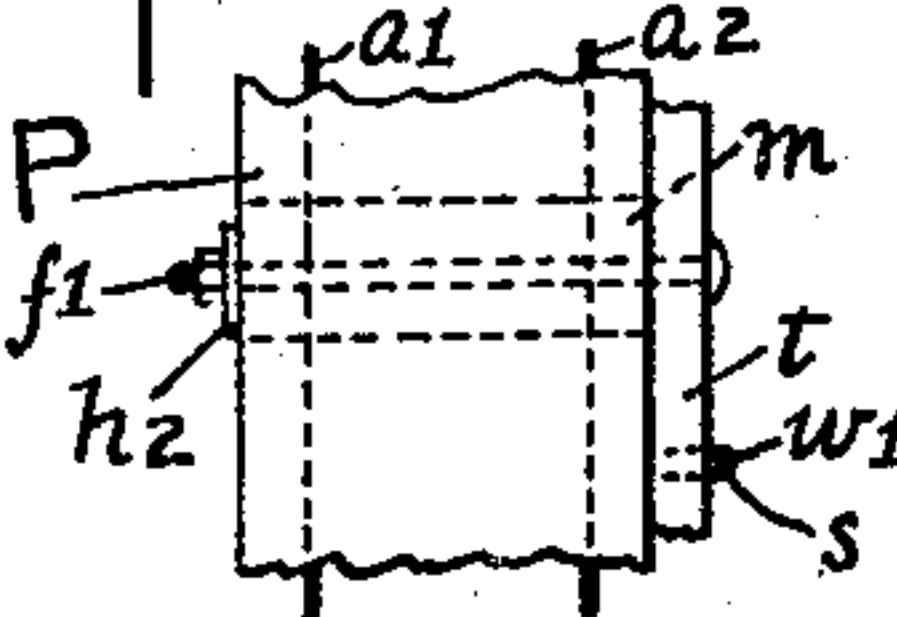


FIG. 11.

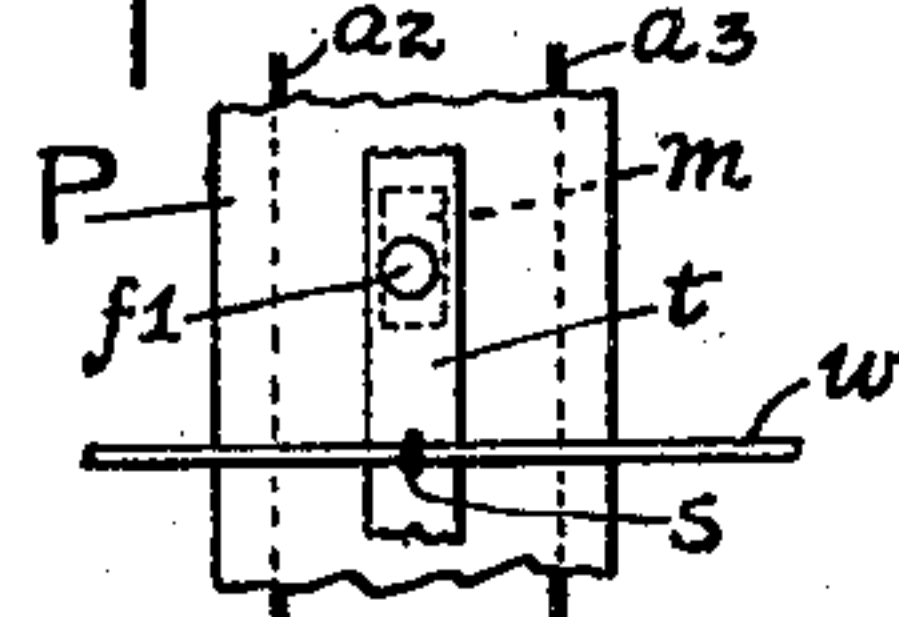
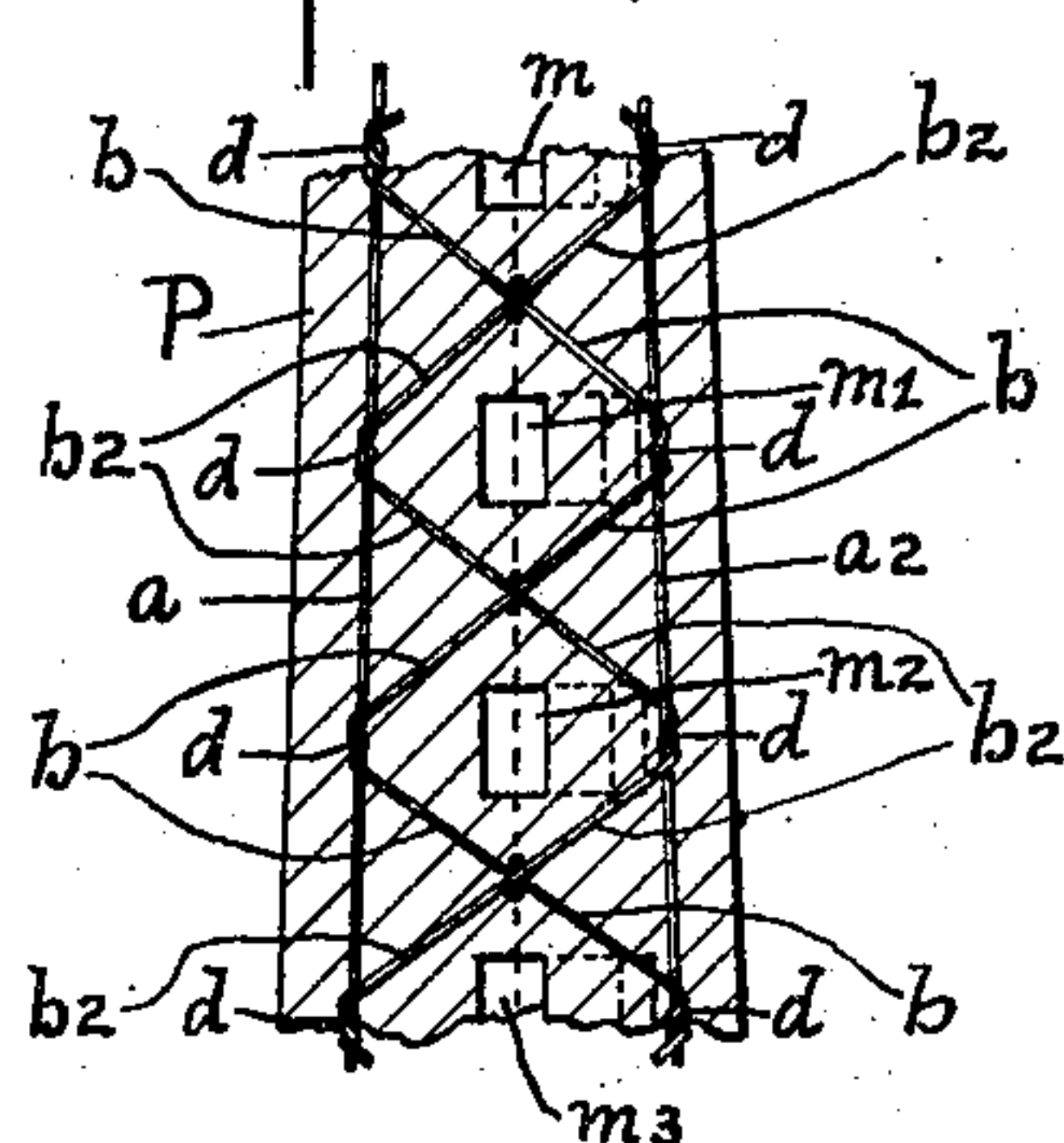


FIG. 7.



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ATTY.

UNITED STATES PATENT OFFICE.

WILLIAM W. WILCOX, OF SPENCERPORT, NEW YORK, ASSIGNOR OF ONE-EIGHTH TO THEODORE S. DEAN AND ONE-EIGHTH TO HENRY E. McARTHUR, OF BROCKPORT, NEW YORK.

POST.

No. 813,338.

Specification of Letters Patent.

Patented Feb. 20, 1906.

Application filed October 27, 1905. Serial No. 284,598.

To all whom it may concern:

Be it known that I, WILLIAM W. WILCOX, a citizen of the United States, residing at Spencerport, in the county of Monroe and State of New York, have invented a new and Improved Post, of which the following is a specification.

This invention relates to what are termed "plastic" posts or, more specifically stated, "reinforced-concrete" posts.

The object of this invention is to provide a post which may be used either as a hitching-post or as a fence-post either at the end of a fence—as, for instance, at the corner of a lot—or as a regular post for sustaining the fence in sections between the end posts, the purpose being to provide a post which may be used in either place, as desired.

Another feature of my invention relates to the method of reinforcing the post so as to strengthen the post between and around the mortises, which I prefer to make use of when the post is designed for use in a fence.

My invention consists in providing a truss-like construction of metal for reinforcing the posts and in arranging the members of the truss so as to strengthen the posts between the mortises to prevent a checking or splitting of the post from one mortise to another and at the same time also providing means whereby the thrust which may be exerted on the post is sustained by a tensional strain upon the members of the truss, which are so connected together as to prevent a sliding of one of them upon another.

In the accompanying drawings I have shown my invention as embodied in a fence-post, having mortises through it of such a character as to permit a considerable range of adjustment vertically of any suitable bolts or fastening media, so that there may either be secured to the post a strip of metal or wood, to which the wires or sections of the fence proper are attached, or that such wire or sections of the fence may be attached directly to the post by means of fastening media inserted in the mortises therefor.

The drawings are as follows: Figure 1 and Fig. 2 show in side view two adjacent sides of a post with the ground *g* around the lower end of the same removed, so as to expose the post to view. Fig. 3 is a top view of the post as seen in Fig. 2. Fig. 4 is a sectional view of

the post as seen in Figs. 1 and 2, with all parts above the dotted lines *x y* in such figures removed. Fig. 5 is a vertical sectional view of the post, taken along the dotted line *x' y'* as seen in Figs. 3 and 4, with all the parts below and to the left of such line removed. Fig. 6 is an enlarged detail view showing a method of twisting the reinforcing-wires. Fig. 7 shows in a view similar to Fig. 5 a second method of arranging the reinforcing-wires. Figs. 8 and 9 show in side and front views, respectively, a means for securing the fence-wires to the post, while Figs. 10 and 11 show in views similar to Figs. 8 and 9 a means for securing nailing-strips to the post, to which in turn the wires of the fence may be secured.

As seen in the drawings, *P* represents the post, which is constructed ordinarily of suitable plastic material, as concrete of suitable mixture, and through which the mortises *m*, *m'*, *m²*, and *m³* are formed for the purpose of securing to the post in any suitable way the wires or fence. In constructing the post I prefer to use four reinforcing-wires *a*, *a'*, *a²*, and *a³*, which extend longitudinally of the post and near the four corners thereof. These wires are twisted at their upper ends at *c'* to form the double loop *e* and *e'*, the wires *a'* and *a³* being formed from a single wire twisted at its middle to form the loop *e*, the wires *a* and *a²* being also formed from a single wire twisted at its middle to form the loop *e'*. The longitudinal reinforcing-wires *a*, *a'*, *a²*, and *a³* are connected together and braced or trussed by means of connecting-wires *b*, *b'*, *b²*, and *b³*, arranged in the following manner—that is to say, these wires *b*, *b'*, *b²*, and *b³* are first twisted at their upper ends, as seen in the drawings, around and with the corner-wires *a*, *a'*, *a²*, and *a³*, respectively, at points on these corner-wires opposite the mortise *m*. Then the wires *b*, *b'*, *b²*, and *b³* are twisted together below the mortise *m* at *c* in such a way that the wire *b* continues diagonally through the post to the longitudinal wire *a²*, about and with which it is twisted opposite the mortise *m'*, and the other wires *b'*, *b²*, and *b³* extend diagonally through the post in a similar manner to the longitudinal wires *a³*, *a*, and *a'*, respectively, and are twisted about and with these longitudinal wires opposite the mortise *m²*. Then the wires *b*, *b'*, *b²*, and *b³* are

brought together below the mortise m' and twisted and extended through the post diagonally to engage the wires a , a' , a^2 , and a^3 , respectively, and are twisted about and with these longitudinal wires opposite the mortise m^2 and are again brought together near the center of the post below the mortise m^3 and twisted together and extend so as to again engage the longitudinal wires a^2 , a^3 , a , and a' , respectively, about and with which they are twisted opposite the mortise m^3 . Then the wires b , b' , b^2 , and b^3 are brought together again near the center of the post and twisted and extended diagonally through the post, so as to engage the wires a , a' , a^2 , and a^3 , respectively, about and with which they are twisted, usually somewhat below the surface of the ground. The longitudinal wires a , a' , a^2 , and a^3 have their lower ends bent inwardly toward the center of the post to give these reinforcing-wires a more effective hold in the material composing the post. The points at which the longitudinal reinforcing-wires are twisted with the diagonally-reinforcing wires are indicated at d , while the points at which these diagonally-reinforcing wires are twisted together near the center of the post are marked c .

The detail indicated in Fig. 6 shows the way in which the diagonal reinforcing-wires are twisted together so that any one wire serves to connect the two longitudinal reinforcing-wires which are diagonally opposite in the post.

In Fig. 7 the arrangement of the reinforcing-wires is similar to that shown in Fig. 5, except that the diagonally reinforcing-wires are not twisted together near the center of the post as they cross each other in passing from the longitudinal reinforcing-wires to those diagonally opposite.

It will be understood, of course, that in forming the post all of the wirework is completed before the material composing the post is placed around such wirework and that the several twists or unions between the several reinforcing-wires are made in such a way that when this completed reinforcing system is properly placed in the form or mold in which the post is made the central twists in the diagonally-reinforcing wires or the crossings of such wires will be located properly between the mortises which are formed in the post.

As seen in Figs. 8 and 9, the bolt f , having at its head end a suitable eye formed therein, is passed through the mortise m , so that the eye projects somewhat beyond a washer h' too large to enter the mortise m , while the nut end is prevented from entering the mortise m by a similar washer h . The wire w , representing one of the wires of the fence, is passed through the eye in the bolt, and then the nut is drawn up until this wire w is securely held against the washer h' .

As seen in Figs. 10 and 11, a strip t , prefer-

ably of wood and extending longitudinally of the post, is secured to the same by bolts extending through the mortises in the post, as indicated in such figures for the mortise m by the bolt f' extending through such mortise, the nut end of which is prevented from entering such mortise by the washer h^2 , while the head is on the outside of the strip t . This strip t may then be used to secure the fence or wires in any suitable manner, as indicated for the wire w' , which is shown as secured to the strip t by the staple s .

It will of course be understood that the size and proportion of the several mortises can be adjusted to meet any special conditions and that such mortises readily permit the adjustment of the fastening-bolts to any heights or spacings required.

When the post has been suitably made of the proper mixture of sand and cement in the usual manner by filling a mold or form with such mixture, first having the reinforcing means properly centered in such form and then permitted to properly age or harden, the result is a very stiff and strong construction, inasmuch as the reinforcing-wires acting in conjunction with the compressive resistance of the concrete serve to resist stress in every direction. The longitudinal reinforcing-wires relieve the concrete from any tensional stress, while the concrete itself resists any compression brought to bear upon the post, and the diagonal reinforcing-wires between the longitudinal wires serve to prevent splitting of the post between the mortises and to effectually truss the whole reinforcing system and prevent the breaking of the post under all ordinary conditions.

What I claim is—

1. As a reinforcement for a post, a series of three or more bars longitudinally disposed near and within the sides of the post and a series of tie-rods secured together at intervals longitudinally of the post at points therein lying practically in the center between such bars and by connections preventing a movement of one of such tie-rods upon the other at such connections, such tie-rods radiating obliquely upward and downward in practically straight lines from such common connections to such bars and secured thereto at two or more points longitudinally thereof, whereby each of such bars is connected to the others by tie-rods extending to such common connections in the center between all such bars.

2. As a reinforcement for a post, a series of three or more bars longitudinally disposed near and within the sides of the post and a series of tie-rods secured together at intervals longitudinally of the post at points therein lying practically in the center between such bars and by connections preventing a movement of one of such tie-rods upon the other at such connections, such tie-rods radiating obliquely upward and downward in practi-

cally straight lines from such common connections to such bars and secured thereto at two or more points longitudinally thereof by connections preventing motion of such tie-rods and bars upon each other at such connections, whereby each of such bars is connected to the others by tie-rods extending to such common connections in the center between all such bars.

3. As a reinforcement for a post, a series of three or more bars longitudinally disposed near and within the sides of the post and a series of tie-rods twisted together at intervals longitudinally of the post at points therein lying practically in the center between such bars and radiating obliquely upward and downward in practically straight lines from such twisted connections to such bars and intertwined therewith at two or more points longitudinally thereof, whereby each of such bars is connected to the others by tie-rods extending to such twisted connections in the center between all such bars.

4. As a reinforcement for a post, a series of three or more bars longitudinally disposed near and within the sides of the post and a series of tie-rods secured together at intervals longitudinally of the post at points therein lying practically in the center between such bars and by connections preventing a movement of one of such tie-rods upon the other at such connections, such tie-rods radiating obliquely upward and downward in practically straight lines from such common connections to such bars and secured thereto at two or more points longitudinally thereof, whereby each of such bars is connected to the others by tie-rods extending to such common connections in the center between all such bars, and mortises extending transversely through such posts between and encircled by such tie-rods.

5. As a reinforcement for a post, a series of three or more bars longitudinally disposed near and within the sides of the post and a series of tie-rods secured together at intervals longitudinally of the post at points therein lying practically in the center between such bars and by connections preventing a movement of one of such tie-rods upon the other at such connections, such tie-rods radiating obliquely upward and downward in practically straight lines from such common connections to such bars and secured thereto at two or more points longitudinally thereof by connections preventing motion of such tie-rods and bars upon each other at such connections, whereby each of such bars is connected to the others by tie-rods extending to such common connections in the center between all such bars, and mortises extending transversely through such posts between and encircled by such tie-rods.

6. As a reinforcement for a post, a series of three or more bars longitudinally disposed near and within the sides of the post and a series of tie-rods twisted together at intervals longitudinally of the post at points therein lying practically in the center between such bars and radiating obliquely upward and downward in practically straight lines from such twisted connections to such bars and intertwined therewith at two or more points longitudinally thereof, whereby each of such bars is connected to the others by tie-rods extending to such twisted connections in the center between all such bars, and mortises extending transversely through such posts between and encircled by such tie-rods.

WILLIAM W. WILCOX.

Witnesses:

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CLARA M. SIENER.