

R. C. SPOOR.  
SIGNAL.

APPLICATION FILED NOV. 24, 1908.

945,629.

Patented Jan. 4, 1910.

2 SHEETS—SHEET 1.

Fig. 1

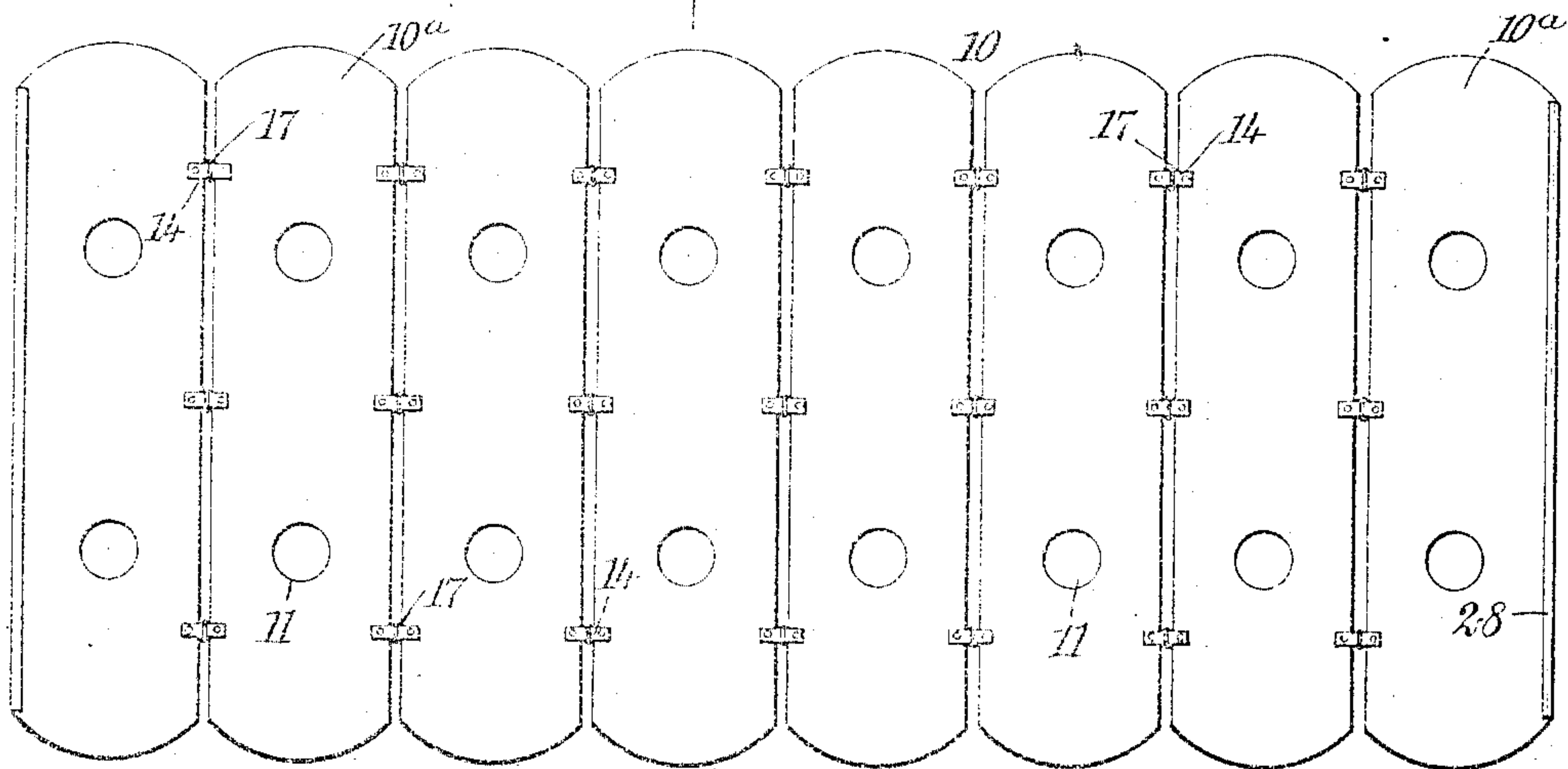


Fig. 2

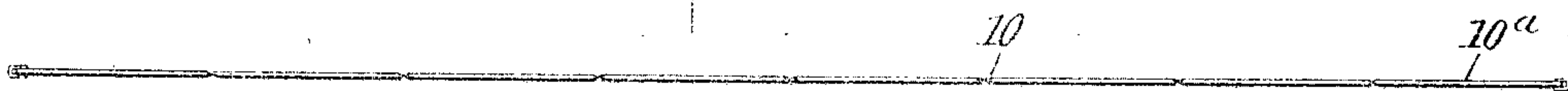
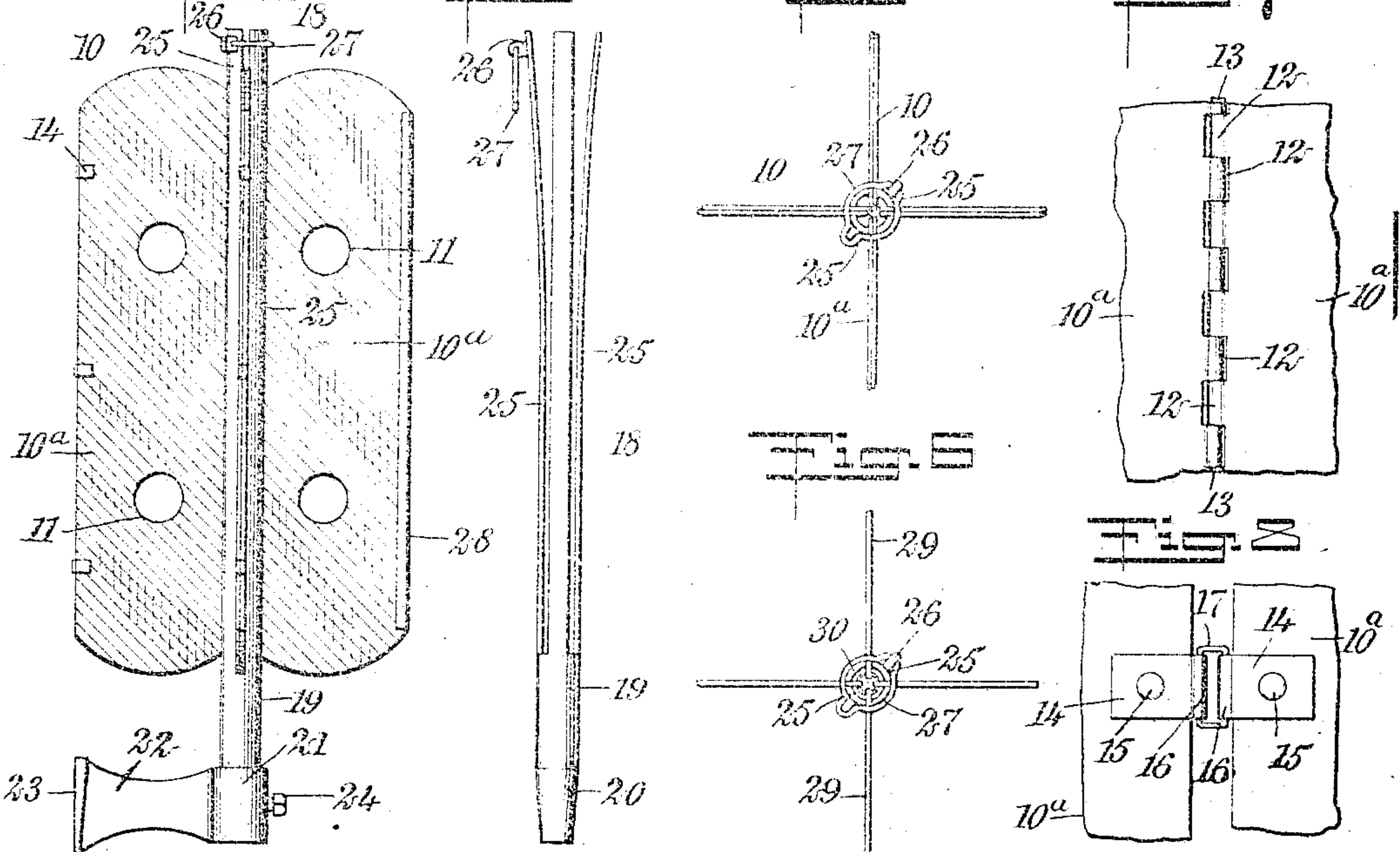


Fig. 3

Fig. 4

Fig. 5

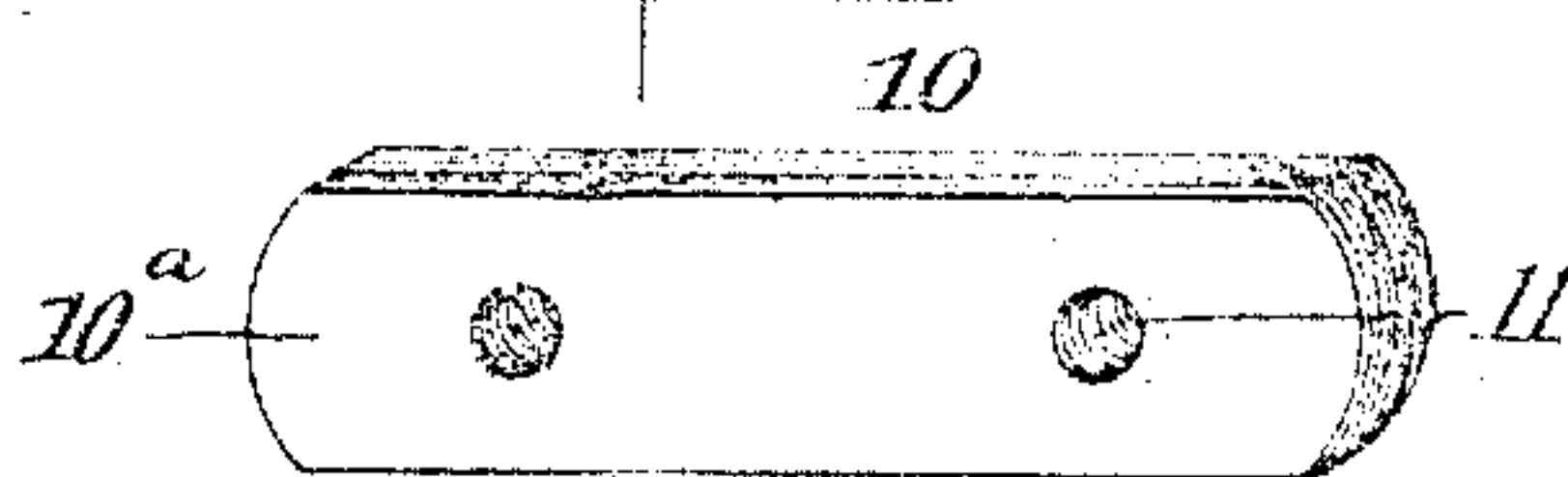
Fig. 7



WITNESSES

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Fig. 6



INVENTOR

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BY *Wm. W. Coe*

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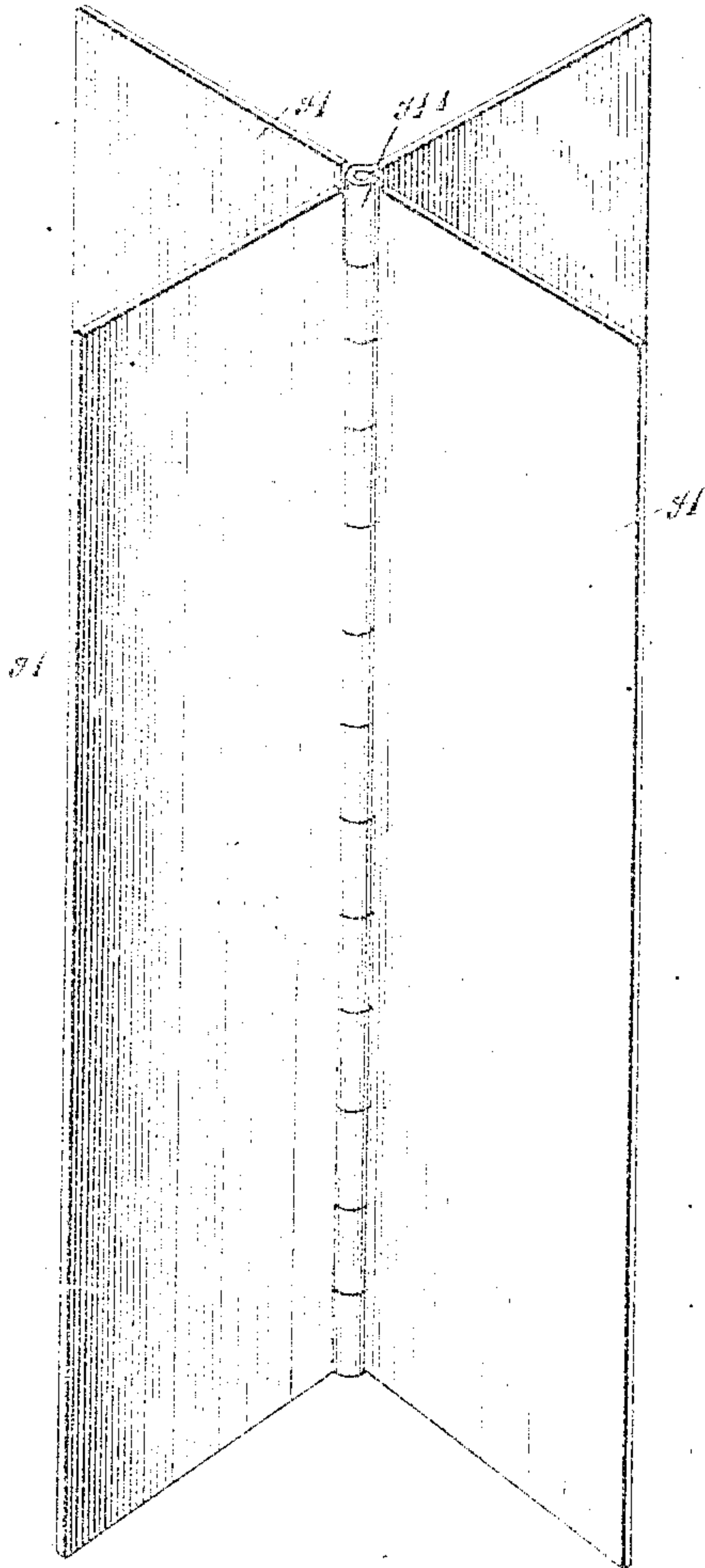
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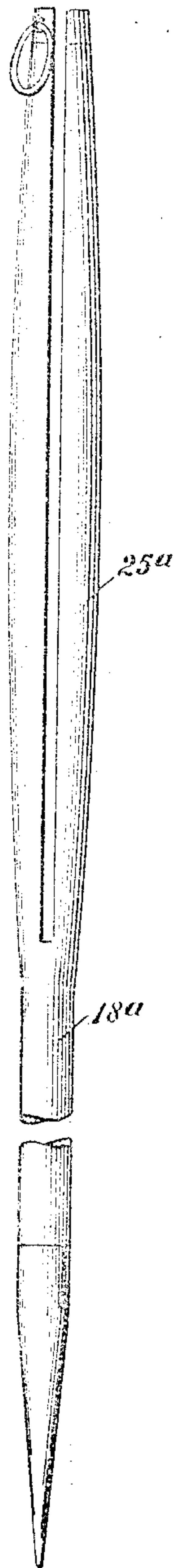
Patented Jan. 4, 1910.

2 SHEETS—SHEET 2.

*Fig. 10*



*Fig. 11*



WITNESSES

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# UNITED STATES PATENT OFFICE.

ROBERT CUSTER SPOOR, OF HASTINGS, COLORADO, ASSIGNOR OF ONE-HALF TO  
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SIGNAL.

945,629.

Specification of Letters Patent.

Patented Jan. 4, 1910.

Application filed November 24, 1908. Serial No. 464,224.

*To all whom it may concern:*

Be it known that I, ROBERT C. SPOOR, a citizen of the United States, and a resident of Hastings, in the county of Las Animas and State of Colorado, have invented a new and Improved Signal, of which the following is a full, clear, and exact description.

This invention relates to signals, and more particularly to reversible signals adapted for use in connection with railroad trains, and intended to be carried by locomotives or cars, and also for the use of trackmen and inspectors.

More specifically, the invention relates to a signal having a standard which can be removably mounted upon a railroad car or the like, or on or near the railroad track, and which carries a removable, reversible target comprising a plurality of sections hinged successively together and having the opposite sides of different appearance, preferably of different colors, the sections being foldable so that one side or color only appears, while the other is completely concealed, the sections forming wings when folded, which are arranged at angles with each other whereby the signal is visible when viewed from all directions.

An object of the invention is to provide a simple and inexpensive railroad signal which can be removably mounted upon railroad locomotives, cars or the like, or on or near the railroad track, which can be reversed to present a different appearance or color, which can be easily cleaned when soiled, and which can be manipulated rapidly and easily.

A further object of the invention is to provide a device of the class described, which is simple in construction, and which will last for a long period without showing signs of usage or wear, and in which the target, when necessary, can be easily repainted or otherwise repaired.

A still further object of the invention is to provide a railroad signal which when not in use can be easily folded into compact form, in which there is little resistance to wind pressure, and which is clearly visible when viewed from any direction.

The invention consists in the construction and combination of parts to be more fully described hereinafter and particularly set forth in the claims.

Reference is to be had to the accompany-

ing drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views, and in which—

Figure 1 is a plan view showing the target sections extended; Fig. 2 is an edge view of the extended target sections; Fig. 3 is a side elevation showing the standard and target in an operative position; Fig. 4 is a side elevation showing the standard by means of which the target is operatively mounted in position; Fig. 5 is a plan view showing the target folded in one manner to render visible one of the target sides; Fig. 6 is a similar view showing a target of modified form; Fig. 7 is a side elevation of parts of two adjacent target sections, showing the hinge connection; Fig. 8 is a similar view showing a hinge connection of modified form; Fig. 9 is a perspective view showing the target sections arranged in juxtaposition for packing them away when not in use; Fig. 10 is a perspective view of a modified form of target; and Fig. 11 is a similar view of a modified form of standard.

Before proceeding to a more detailed explanation of my invention, it should be clearly understood that while the same is particularly useful in connection with railroad trains and the like, it can also be advantageously employed for other signaling or like purposes, in which it is necessary to display targets or similar devices of special appearance.

I prefer to fashion the target of my invention from either metal or paper as the class of work to be performed by the signal may require. The opposite sides of the target, which comprises a plurality of sections hinged successively together, can be painted in different colors, or otherwise rendered of different appearance.

By suitably folding the target in one way, as will appear more clearly hereinafter, one side of the target is concealed, while the other is visible. By folding the target in another manner, the first side, that is, the one visible in the first folding, is concealed, while the other is rendered visible. In this way the target can be reversed for the usual purposes of signaling.

The standard, by means of which the target is mounted in an operative position, is so formed that it can be applied to the ordinary signal sockets provided upon rail-



road locomotives and cars and now in general use.

If the signal is to be used by inspectors, track walkers or other persons whose occupations necessitate signals of this kind, I prefer to employ four target sections A (see Fig. 10) which have a common central hinge A' and are not hinged successively. Signals of this kind are usually of one color, and the target need not therefore be reversed on occasions to present a different appearance. The standard used with this kind of signal is preferably elongated and pointed at the lower end so that it can be thrust into the ground or can be otherwise suitably positioned; so that it can be easily seen at or near the track.

Referring more particularly to the drawings I provide a target 10, comprising sections 10<sup>a</sup> fashioned from sheets of metal, paper or other suitable material, preferably elongated in form and hinged successively together by metal hinges at the longitudinal edges of the sections. I have found it useful to provide sections with openings 11 there through to reduce the wind pressure against the target.

In Fig. 7 is shown a form of hinge. Each target section at the longitudinal edges has a spaced hinge sleeve 12 adapted to be arranged between corresponding sleeves 12 of the adjacent sections. Suitable hinge pins or members 13 are located in the sleeves and securely attach the sections together, permitting them to swing freely with respect to each other.

In Fig. 8 is shown a modified form of hinge connection in which each target section has at the longitudinal edges, clips 14 secured thereto by rivets 15 or the like and having at the edges of the sections sleeves 16. Hinge links 17 are arranged in the sleeves and foldably attach the sections.

I provide a standard 18 having a substantially cylindrical section 19, the lower end 20 of which is tapered to fit into a sleeve 21 formed at the end of a bracket 22. The latter has the opposite end 23 of wedge shape to fit into the ordinary socket carried for the purpose by railway locomotives or cars. A set screw 24 serves to secure the standard removably within the sleeve 21. The standard above the section 19 is split to form four similar parts 25 which possess a certain normal resiliency and tend to spread or incline outwardly as shown most clearly in Fig. 3. The standard can be fashioned from sheet metal or other similar material. If the standard 18<sup>a</sup> is constructed of wood, the parts 25<sup>a</sup> (Fig. 11) are slightly thickened intermediate their ends to give them the requisite strength. At the upper end of one of the parts 25 is an eye 26 in which is loosely carried a ring 27 adapted to be slipped over

the free ends of the parts to hold the same together, for a purpose which will appear hereinafter.

The target sections are so folded that they are arranged in pairs, the sections of each of which are in juxtaposition, the pairs being arranged at substantially right angles as is shown most clearly in Fig. 5. One of the end sections has a rearwardly disposed flange 28 which is adapted to engage at the free edge of the other end section to hold the two end sections together when the target is folded. The folded arrangement of the sections permits one side of each section to be concealed, leaving the other side visible, whereby the target when viewed from any one direction is of similar appearance; that is to say, is of one color or of one system of ornamentation or the like. The target when folded is inserted between the parts 25 of the standard, one of the parts being arranged between two pairs of adjacent sections. The upper ends of the parts are then drawn together and have the ring 27 slipped over the same to hold the target in place. When it is desired to alter the appearance of the signal it is necessary merely to unfold the sections and reverse them, the hinge connection freely permitting this to be done.

When the target is not in use the sections can be assembled as is shown in Fig. 9, so that they assume a compact form, and can be put away in a place of small compass.

The form of the signal intended for use by inspectors or trackmen has the cylindrical part 19 of the standard extended and sharpened so that it can be thrust into the ground. The signal itself is hinged at the center as is shown most clearly in Fig. 6 and preferably the sections 29 are of the same color on both sides, and are connected by hinged rings 30.

Having thus described my invention, I claim as new, and desire to secure by Letters Patent:

1. A signal, having a standard a portion of which is formed into a plurality of separated parts, and a reversible target comprising wings hinged to each other and arranged in pairs, said target being mounted upon said standard whereby one of said parts is interposed between the wings of adjacent pairs.

2. A signal having a standard a portion of which is divided into a plurality of similar elongated members, and a target having sections hinged together and adapted to be arranged in parts radiating from a common center, and each part being at an angle to the adjacent part, each of said parts of the target extending outward from said common center between two adjacent members of the standard.

3. A signal, comprising a standard consisting of four similar elongated members



connected together at one end, a target having a plurality of wings hinged together and adapted to be arranged in four parts, with adjacent parts at right angles to each other and radiating from a common center, said target being adapted to be mounted upon said standard with the said common center surrounded by said members of the standard, and each member of the standard, extending between two adjacent parts of the target, and a ring at the upper end of the standard adapted to encompass the members of the standard to hold the same together at the free ends.

4. A signal, having a target comprising a plurality of pairs of sections hinged successively together and having the opposite sides of different appearance, said sections being foldable whereby one side only, of said target is visible and the other side is concealed, and a standard for removably mounting said target in position.

5. A signal, having a standard, and a reversible target removably carried by said standard, said target comprising a plurality of sections hinged successively together and having the opposite sides of different appearance, said sections being foldable whereby each two adjacent sections of each pair have the sides of similar appearance in juxtaposition to conceal said similar sides, each pair of sections being arranged at an angle to the adjacent pairs.

6. A signal, having a standard a portion of which is formed into a plurality of separated parts, and a reversible target comprising

a plurality of sections mounted successively together and having the opposite sides of different appearance, said sections being foldable whereby adjacent sections of each pair have the sides of similar appearance in juxtaposition to conceal said similar sides, each pair of sections being arranged at an angle to the adjacent pairs, said target being mounted upon said standard whereby one of said parts is interposed between each two adjacent pairs of sections.

7. A signal, comprising a standard, a reversible target, said standard consisting of a plurality of elongated parts secured together at one end and tending normally to spread outward, said target comprising a plurality of sections hinged successively together and having the opposite sides of different appearance, said sections being foldable whereby adjacent sections are arranged in juxtaposition with sides of similar appearance concealed, each pair of said sections in juxtaposition forming wings arranged at an angle with the wings formed by adjacent pairs of said sections, said target being mounted upon said standard whereby one of said parts is arranged between adjacent wings, and means for removably securing the free ends of said parts together.

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

ROBERT CUSTER SPOOR.

Witnesses:

SAVERIO VECCHIO,  
M. M. STUART.