July 28, 1931. J. B. STRAUSS 1,815,936

MOORING MAST FOR AIRSHIPS

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Fig. 1

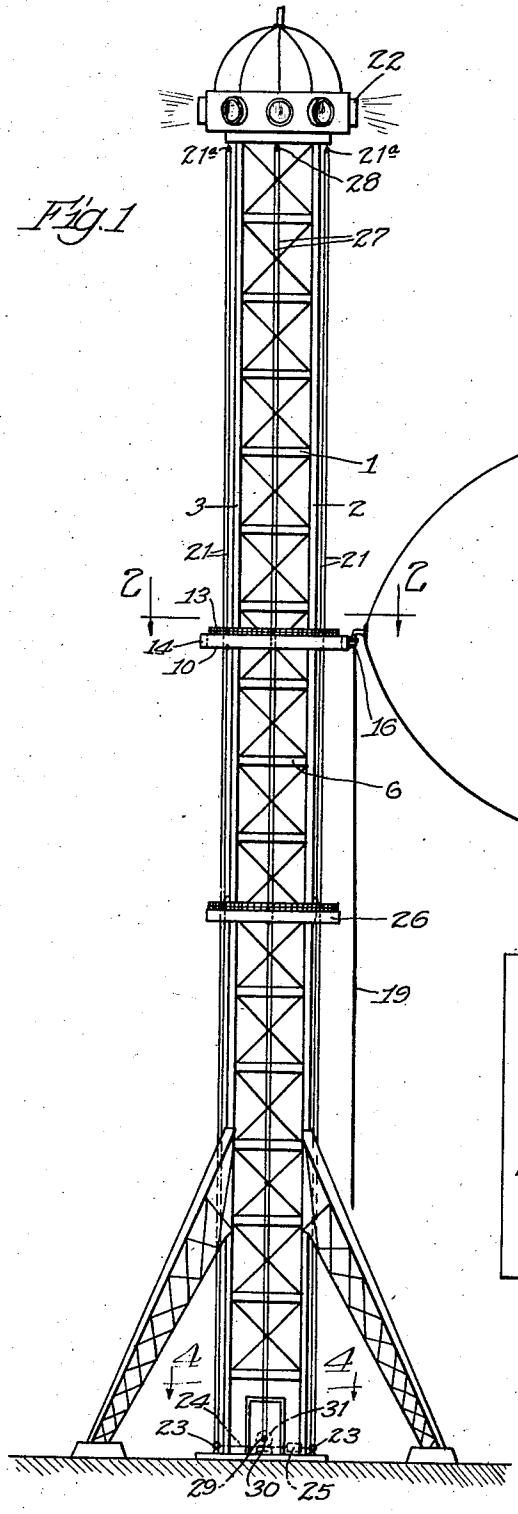
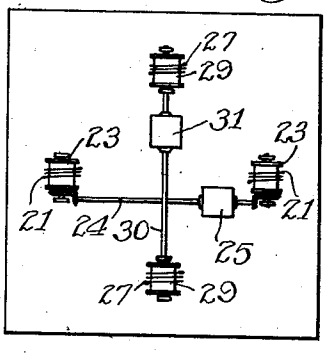


Fig. 4.



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Fig. 2

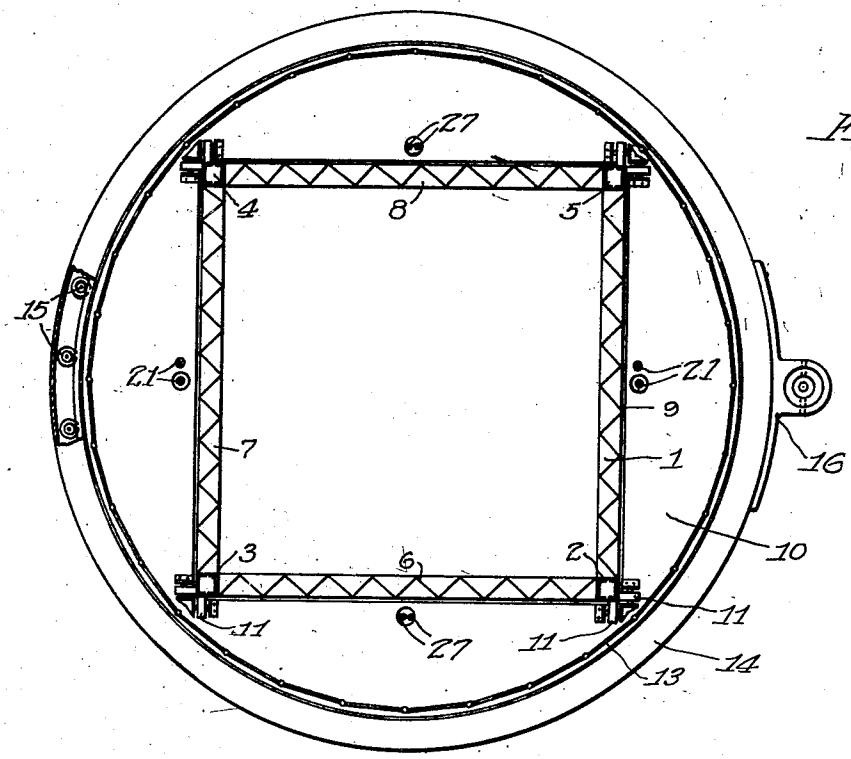
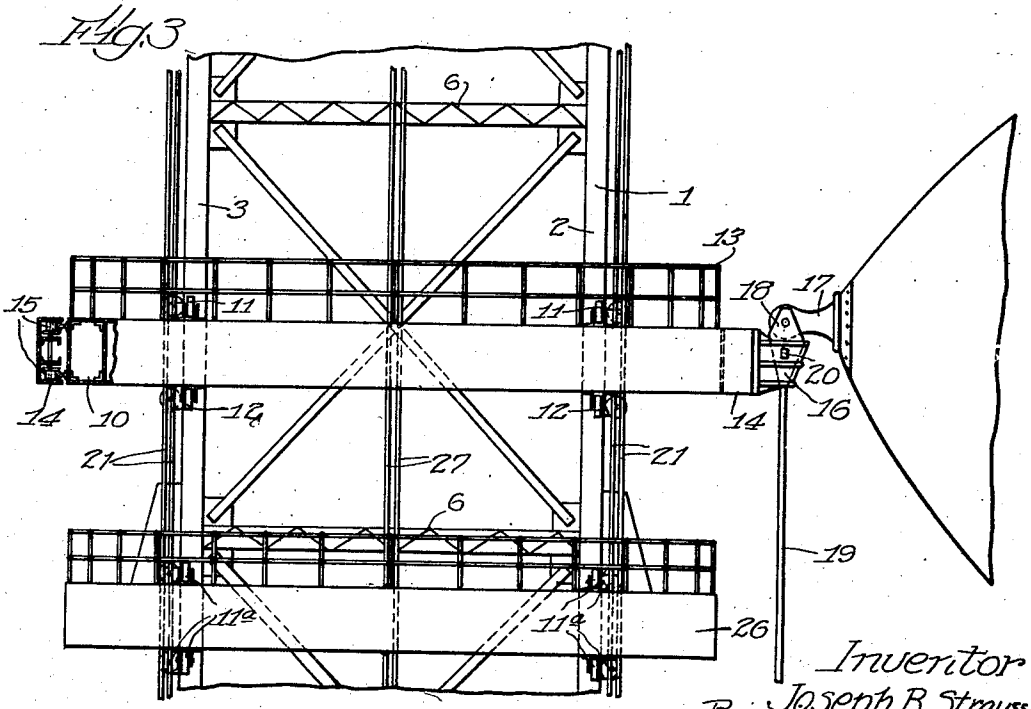


Fig. 3



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UNITED STATES PATENT OFFICE

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MOORING MAST FOR AIRSHIPS

Application filed August 6, 1925. Serial No. 48,684.

This invention relates to mooring masts for airships and has for its object to provide a new and improved device of this description.

The invention has as a further object to provide a mooring mast for dirigible flying machines with means associated therewith to which the airship may be connected and which is movable longitudinally along the stationary portion of the mast.

The invention has as a further object to provide a mooring mast with an elevated platform with which the dirigible is connected and which is movable up and down along the stationary portion of the device.

The invention has further objects which are more particularly pointed out in the accompanying description.

Referring now to the drawings:

Fig. 1 is a view of one form of mooring mast embodying the invention.

Fig. 2 is a sectional view with parts omitted taken on line 2—2 of Fig. 1.

Fig. 3 is an enlarged side elevation of a portion of the mooring mast shown in Figs. 1 and 2.

Fig. 4 is a sectional view taken on line 4—4 of Fig. 1 with the tower members omitted showing the motors and drums for the elevating platforms.

Like numerals refer to like parts throughout the several figures.

In carrying out the invention there is provided a tower 1 which may be made in any desired form and which is connected with the ground so as to have sufficient rigidity to withstand the pull of the airship and the other stresses that come thereon.

In the construction illustrated this tower 1 is rectangular in form and is provided with the corner upright members 2, 3, 4 and 5 connected together by a series of cross members 6, 7, 8 and 9 located at different points along the upright members and these cross members are laced together by suitable connecting members, the whole being preferably arranged to form a truss construction. This structure therefore forms a self supporting tower or mast.

An elevating platform 10 is connected with the tower 1 and is arranged to be moved up and down therealong. This elevating platform is preferably circular in shape and is provided with rollers 11 and 12 which roll along suitable guides on the tower. There are shown four sets of these rollers, one set at each corner of the tower. In this construction the rollers roll along the corner uprights as guides. The elevating platform is preferably provided with a railing 13.

Connected with the elevating platform is a rotating ring 14, connected with said platform so that it may be rotated thereabout. This ring 14 is preferably provided with a series of rollers 15 which engage the platform so as to permit the easy rotation of the ring. Connected with the ring 14 is a fastening device 16 to which the airship is connected. The airship is provided with an attaching device consisting of the member 17 having pivoted thereto the member 18. The member 18 is preferably cone shaped and the opening in the fastening device 16 is also cone shaped to receive the member 18. The main hauling line 19 is connected with the member 18 of the attaching device and the two parts may be connected together by the fastener 20.

The elevating platform 10 is moved up and down along the tower by any suitable means. As herein shown, this is done by means of cables 21. These cables pass over pulleys 21[a] at the top of the tower and about drums 23 at the bottom of the tower, thus forming loops, one member of each loop being connected with the elevating platform 10.

Some means is provided for rotating the drums 23. As herein shown, these drums are rotated by a shaft 24 connected to the drums by suitable gearing, the shaft being rotated by a motor 25.

A second platform 26 may be provided. This platform may be similar to platform 10 except that it does not have the rotating ring 14. This platform may be used for carrying passengers up to and down from the airship, and for loading and unloading passengers. The platform 26 is provided with means for preventing the platform 10 from approaching near enough to injure the passengers. This may be accomplished by having posts on the platform 26 which are engaged by the

platform 10 when the two platforms come together and which are of sufficient height to prevent the passengers from being injured.

The platform 26 may be lifted and lowered by a mechanism similar to that for platform 10. There is illustrated for this purpose cables 27 which pass over pulleys 28 at the top of the tower and drums 29 at the bottom of the tower, the drums being rotated by the shaft 30 connected with the motor 31, there being the necessary reducing gears between the motor and the drums.

I claim:

1. A self supporting mooring mast for airships comprising a tower, a non-rotating elevating passenger platform surrounding said tower and adapted to be moved longitudinally therealong, said tower having four separated upright members which act as guides for said passenger platform, engaging devices on said platform for engaging said upright members and means for fastening the airship to said elevating platform comprising a movable ring rotatably mounted on said passenger platform.

2. A mooring mast for airships comprising a tower, an elevating platform surrounding said tower and adapted to be moved longitudinally therealong, a ring rotatably mounted upon said platform, and a fastening device connected with said ring to which the airship is attached.

3. A self supporting mooring mast for airships comprising a tower and an elevating platform surrounding said tower and movable longitudinally therealong said tower having four separated upright members, engaging devices on the platform which engage said upright members to guide the elevating platform in its up and down movement, and means for preventing rotary movement of said platform.

4. A mooring mast for airships comprising a rectangular tower, an elevating platform surrounding said tower but separate therefrom, rollers connected with said platform and engaging guides on said tower, a ring exterior to said platform and rotatably connected therewith, and a fastening device connected with said ring to which the airship may be connected.

5. A mooring mast for airships comprising a tower, an elevating passenger platform surrounding said tower and movable longitudinally therealong, and means for preventing said platform from rotating about said tower and means, movable with relation to said platform, for connecting it with an airship.

Signed at Chicago, county of Cook and State of Illinois, this 1st day of August, 1925.

JOSEPH B. STRAUSS.