J. T. AMISS.

AEROPLANE LANDING DEVICE.

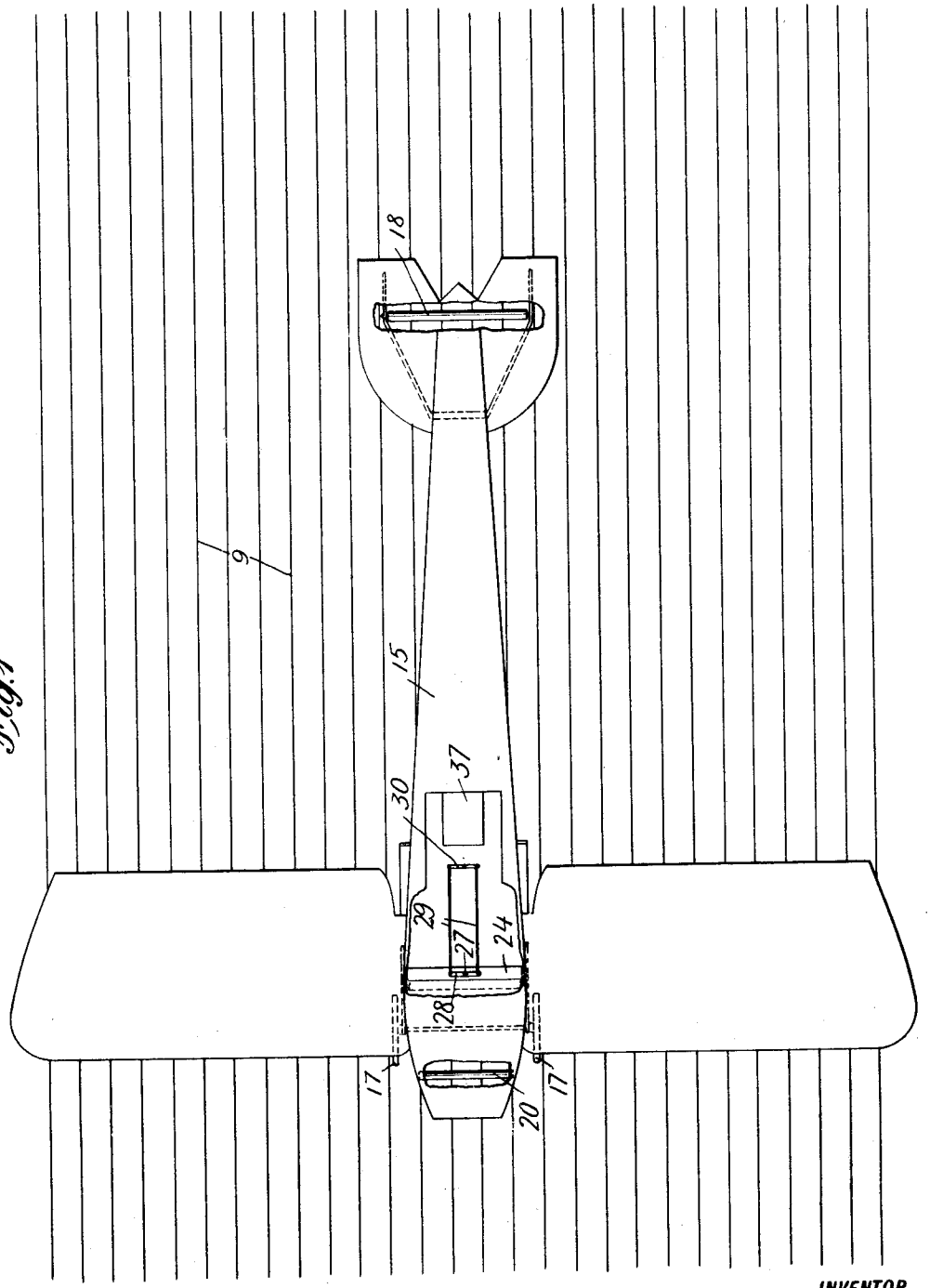
APPLICATION FILED AUG. 21, 1913.

1,085,000.

Patented Jan. 20, 1914.

4 SHEETS—SHEET 1.

Fig. 1



WITNESSES

F. D. Sweet.

B. Joffe

INVENTOR

JAMES T. AMISS

BY Munn & Co

ATTORNEYS

J. T. AMISS.

AEROPLANE LANDING DEVICE.

APPLICATION FILED AUG. 21, 1913.

1,085,000.

Patented Jan. 20, 1914.

4 SHEETS—SHEET 2.

Fig. 2.

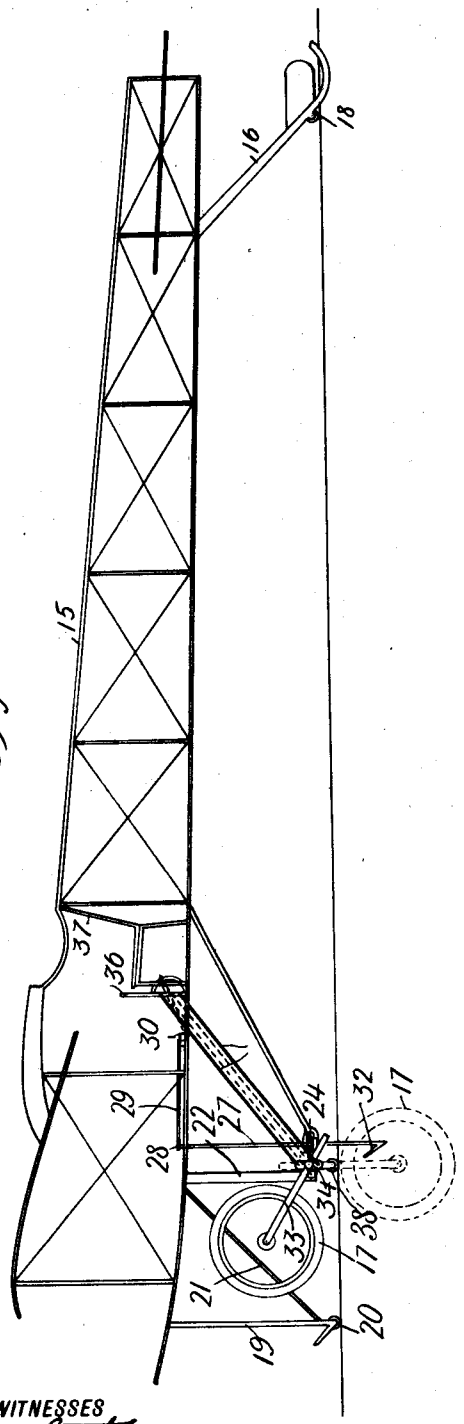
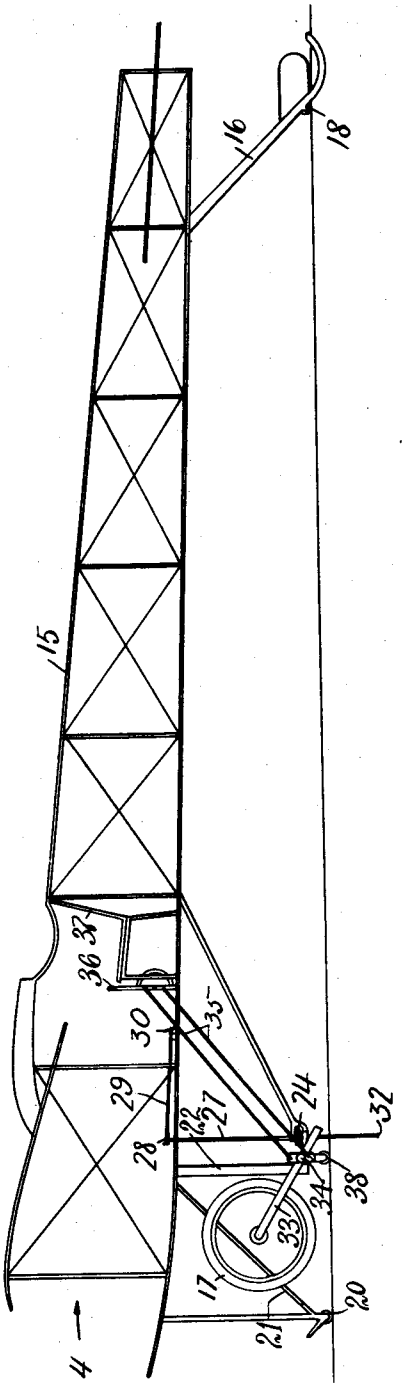


Fig. 3



WITNESSES

F. D. Sweet.

B. Joffe

INVENTOR

JAMES T. AMISS

BY Munn & Co

ATTORNEYS

J. T. AMISS.

AEROPLANE LANDING DEVICE.

APPLICATION FILED AUG. 21, 1913.

1,085,000.

Patented Jan. 20, 1914.

4 SHEETS—SHEET 3.

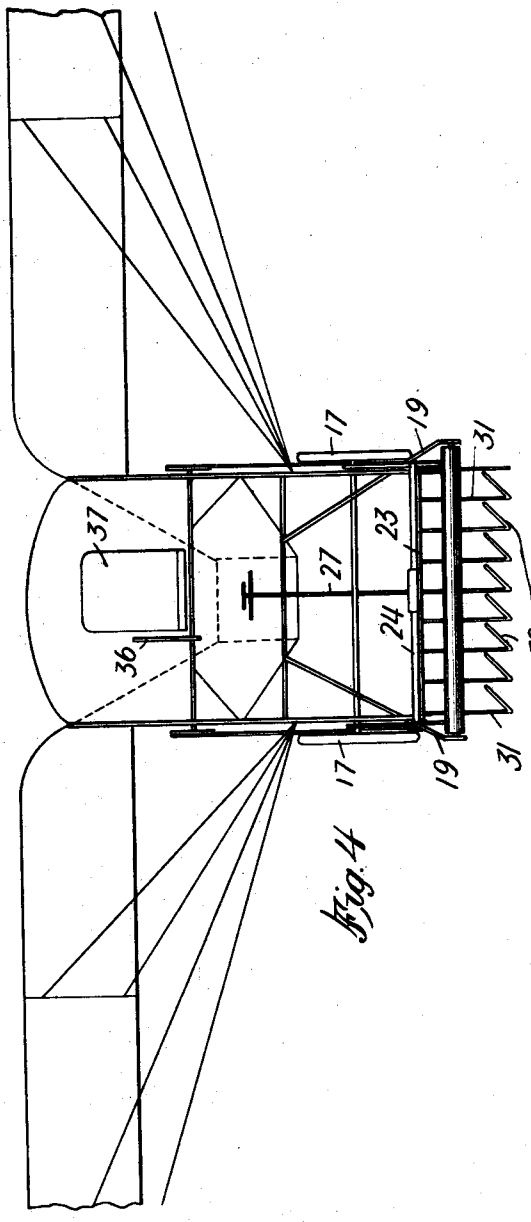


Fig. 4

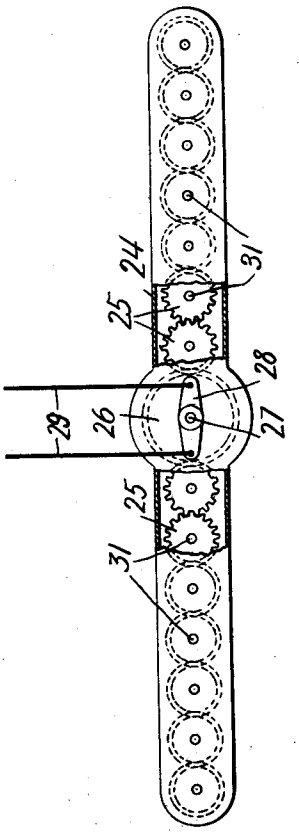


Fig. 5

WITNESSES

F. D. Lovett.

B. Joffe

INVENTOR

JAMES T. AMISS

BY Munn & Co

ATTORNEYS

J. T. AMISS.

AEROPLANE LANDING DEVICE.

APPLICATION FILED AUG. 21, 1913.

1,085,000.

Patented Jan. 20, 1914.

4 SHEETS—SHEET 4.

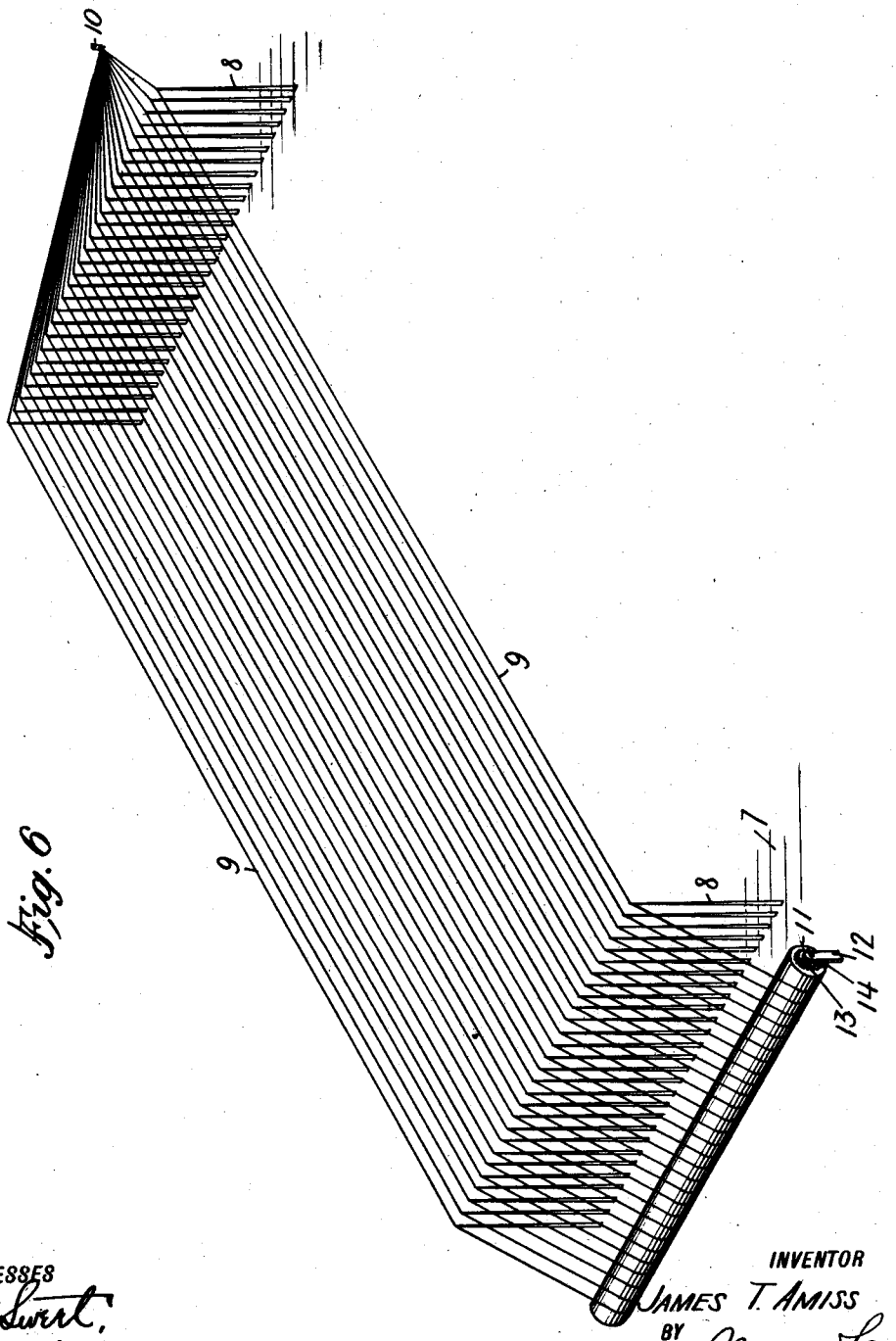


Fig. 6

WITNESSES

F. D. Swart.

B. Joffe

INVENTOR

JAMES T. AMISS

BY Munn & Co

ATTORNEYS

UNITED STATES PATENT OFFICE.

JAMES TOWNSEND AMISS, OF BATON ROUGE, LOUISIANA.

AEROPLANE-LANDING DEVICE.

1,085,000. Specification of Letters Patent. Patented Jan. 20, 1914.

Application filed August 21, 1913 Serial No. 785,915.

To all whom it may concern:

Be it known that I, JAMES T. AMISS, a citizen of the United States, and a resident of Baton Rouge, in the parish of East Baton Rouge and State of Louisiana, have invented a new and Improved Aeroplane-Landing Device, of which the following is a full, clear, and exact description.

The object of my invention is to provide means for facilitating the landing of flying machines at special landing stations, such as may be provided on battleships, dirigibles, airships, or carried by military automobiles, or used in aerodromes.

A further object of the invention is to provide the flying machine to be mounted on such a platform with means whereby it can be landed on the ground.

I obtain these objects by providing a platform having the shape of a grate formed of a series of longitudinal members the tension of which members can be controlled, and equipping the flying machine with means adapted to facilitate the landing and the starting of the flying machine from the platform and forming the support of the flying machine on the platform, means for anchoring the machine on the platform, and collapsible standards for front wheels of the flying machine controllable from the seat of the aviator.

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

Reference is to be had to the accompanying drawings forming a part of this specification, in which like characters indicate corresponding parts in all the views and in which:

Figure 1 is a plan view of a platform and flying machine embodying my invention; Fig. 2 is a side elevation of a flying machine resting on a platform, showing it in position ready to start, and also showing in dotted line the position of the front wheels when landing on the ground; Fig. 3 is a view similar to Fig. 2 showing the machine anchored to the platform; Fig. 4 is an enlarged front elevation in the direction shown by the arrow 4 in Fig. 3; Fig. 5 is a plan view of the gear case controlling the anchoring mechanism partly broken away to show the details of construction; and Fig. 6 is a schematic view in perspective of the platform with means for varying the tension of the members forming the platform.

Referring to the drawings, 7 represents a platform provided with two parallel rows of standards, the standards 8 of the rows being substantially equidistant from one another and collapsible on the support. The parallel rows of standards have the opposite standards in alinement with each other, and each pair of alining standards supports a longitudinal member 9, which is preferably a wire. One end of all of these wires is connected to a common support 10 positioned behind one of the rows of standards, while the opposite ends of said wires are secured to a drum 11 rotatably mounted in brackets 12 positioned on the support 7. A ratchet 13 is carried by the drum and is engaged by a pawl 14 mounted on the bracket 12. The drum 11 is also provided with means whereby it may rotate and whereby the tension of the wires 9 may be varied. (The means for rotating the drum are not shown in the drawing).

Positioned on the platform formed by the wires 9 (see Figs. 1, 2 and 3) is a flying machine 15 of the heavier-than-air type, provided with the customary runners 16 at the rear end of the machine and wheels 17 at the forward end of the same. The runners 16, adjacent their lower end, are provided with a roller 18 mounted transversely of the longitudinal axis of the machine. The forward end of the machine is provided with supports 19 between the lower extremities of which a similar roller 20 is mounted disposed parallel to the roller 18. A roller 38 is positioned intermediate the rollers 18 and 20 and is carried by the standard 22. The supports 19 are reinforced by abutting members 21. The rollers 18, 20 and 38 form the members which contact with the wires 9 of the landing platform and whereby the flying machine is supported on the platform.

The standards 22, which carry the wheels 17, are provided with a lateral extension 23 on which a gear casing 24 is positioned. The gear casing 24 extends transversely of the longitudinal axis of the flying machine and therein receives a number of intermeshing gears 25 disposed on the opposite sides of the center of the casing and in mesh with a central gear 26. The central gear 26 has its shaft 27 extending upwardly and downwardly through the casing 24, the upper end

being keyed to a lever 28 to the ends of which pivotal rods 29 are connected. The opposite ends of the rods 29 are connected to the ends of a centrally pivoted foot pedal 30 whereby the central gear 26 is actuated, thereby actuating the intermeshing gears 25 at the opposite sides of the central gear 26. Every other of the intermeshing gears 25 is mounted on an axle 31 projecting downwardly below the casing 24 at the same level as the shaft 27. These projecting ends of the axles 31 and of the shaft 27 are bent to form a hook 32. (See Figs. 2 and 4).

When the machine is landing, or ready to start, as shown in Fig. 2, the hook-shaped ends 32 of the axles 31 and the shaft 27 are disposed, as shown in Fig. 2, parallelly to the longitudinal wires 9 of the landing platform. When the machine is resting on the platform, the axles 31 and the shaft 27 are turned so as to dispose the hook-shaped ends 32 transversely to the longitudinal direction of the wires 9 and thereby anchor the machine to the platform, that is, preventing the rise of the same from the platform, as the hook-shaped ends 32 will engage the wires 9 of the same.

To permit the landing of the flying machine on the platform provided with longitudinal members as described without the same interfering with the wheels 17, the standards 22 are made collapsible by pivoting the lower ends 33 of the standards 22 and providing the same with an arm 34 which is engaged to a lever 36 of parallel rods 35. The lever 36 is positioned adjacent the aviator's seat, and by moving this lever the aviator can throw the wheel 17 to the position shown in Fig. 2 by moving the said lever 36 from the position shown in dotted line in Fig. 2, and the position shown in full in the same figure, thus swinging the arm 34 and therewith the ends 33 of the standard 22 from the dotted line position to the full line position, as shown in Fig. 2.

As described, it can be easily seen that the aviator from his seat 37 controls all of the hook-shaped ends 32 by means of the foot pedal 30, and also the position of the wheel 17. The provision of the rollers 18 and 20 is to facilitate the movement of the flying machine on the platform when starting or landing the machine and to reduce the shock.

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

1. The combination of a landing platform having a grate structure with a flying machine having members forming supports for the flying machine on the platform, said supports having such a structure as to facilitate the landing and starting of the flying machine; and rigid anchoring means adapted to engage the platform and means controllable from the aviator's seat whereby said anchoring means are made to engage or disengage the platform.

2. The combination of a landing platform formed of substantially parallel longitudinal members with a flying machine having members forming supports for the machine on the platform, said supports being of such a structure as to facilitate the landing and starting of the flying machine; and rigid anchoring means adapted to engage the said longitudinal members forming the platform and means controllable from the aviator's seat adapted to cause said anchoring means to engage or disengage said platform.

3. The combination of a landing platform formed of substantially parallel longitudinal members and means for varying the tension of said members with a flying machine having members forming supports for the machine on the platform, said supports having such a structure as to facilitate the landing and starting of the flying machine; rigid anchoring means on said machine; and means controllable from the aviator's seat for causing the engagement or disengagement of said anchoring means with the platform.

4. The combination of a landing platform formed of substantially parallel longitudinal members and means for varying the tension of said members with a flying machine having rollers adjacent the ends thereof and forming supports for the machine on the platform; rigid anchoring means adapted to engage the platform; and means for causing the engagement or disengagement of the anchoring means with the platform controllable from the aviator's seat.

5. The combination of a landing platform formed of substantially parallel longitudinal members with a flying machine having rollers adjacent the ends thereof disposed transversely of the longitudinal axis of the machine and forming the supporting members for the machine on the platform; and anchoring means adapted to engage said longitudinal members and means controllable from the aviator's seat for engaging or disengaging the said anchoring means with the platform.

6. The combination of a landing platform formed of substantially parallel longitudinal members with a flying machine having rollers forming supports for the machine on the platform; an anchoring device formed of a plurality of substantially vertical members having means at the lower extremities adapted to engage said longitudinal members; and means for causing the engagement of said ends with said longitudinal members controllable from the aviator's seat.

7. The combination of a landing platform formed of substantially longitudinal members with a flying machine having rollers disposed transversely of the longitudinal

axis of the machine adjacent the ends thereof and forming supports for the machine on the platform; an anchoring device positioned adjacent the front end of the machine and comprising a plurality of vertical rods having hooked-shaped ends adapted to engage said longitudinal members and a series of intermeshing gears at the opposite ends; means for operating said intermeshing gears from the aviator's seat, whereby said hooked ends of the vertical members can be made to engage or disengage said longitudinal members of the platform.

8. The combination of a landing platform formed of substantially longitudinal members with a flying machine having rolling members forming a support for the machine on the platform; rigid anchoring means controllable from the seat of the aviator adapted to engage said longitudinal members; and front wheels carried on collapsible standards, also controllable from the seat of the aviator, for preventing the interference of said wheels with the platform when the machine is landing or resting on said platform.

9. The combination of a landing platform formed of substantially parallel longitudinal members and means for varying the tension of said members with a flying machine having rollers positioned transversely of the longitudinal axis of the flying machine adjacent the ends and middle thereof and forming supports for the machine on the platform; a plurality of hooked-shaped members adapted to engage the longitudinal members forming the platform; means for turning said hook-shaped members from the aviator's seat, whereby the said hook-shaped members can be made to engage or disengage said longitudinal members forming the platform, whereby the machine is anchored or detached from the platform; a pair of collapsible standards adjacent the front of the machine; wheels carried by the collapsible ends of the standards; and means controllable from the aviator's seat whereby said standards can be collapsed and whereby said wheels are placed in a position not to interfere with the platform when the machine is landing on the same or is resting on the platform.

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

JAMES TOWNSEND AMISS.

Witnesses:
CELIA STONE,
T. JAMES CROSS.