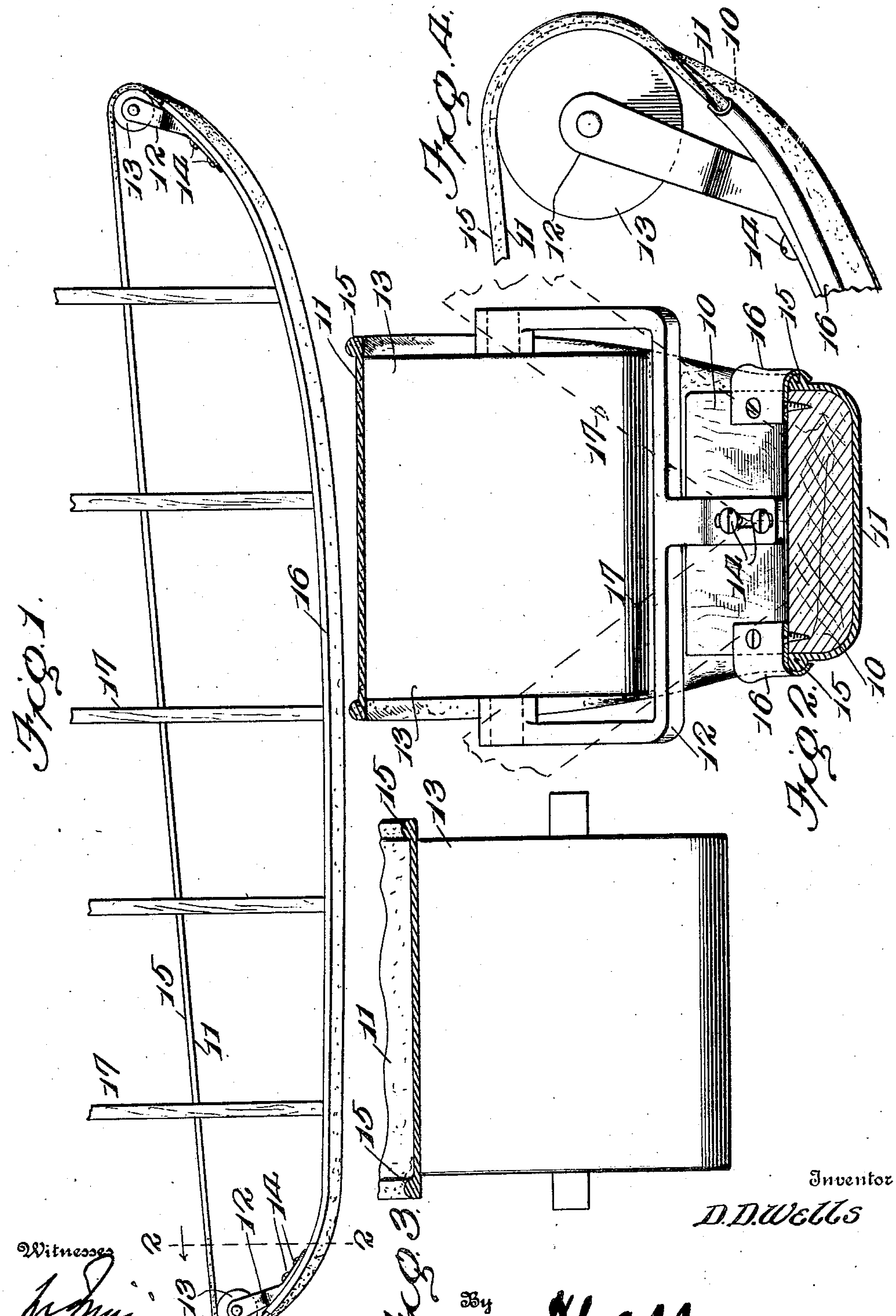
D. D. WELLS.

SKID FOR AERIAL NAVIGATING DEVICES.

APPLICATION FILED FEB. 3, 1909.

935,075.

Patented Sept. 28, 1909.



Witnesses

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SKID FOR AERIAL NAVIGATING DEVICES.

935,075. Specification of Letters Patent. Patented Sept. 28, 1909.

Application filed February 3, 1909. Serial No. 475,786.

To all whom it may concern:

Be it known that I, DANIEL D. WELLS, citizen of the United States, residing at Jacksonville, in the county of Duval and State of Florida, have invented certain new and useful Improvements in Skids for Aerial Navigating Devices, of which the following is a specification.

This invention relates to aerial navigation and refers particularly to a skid to be employed with machines of this nature.

An object of this invention is to provide a machine of this character with means whereby the same may be started in flight from surfaces which are rocky or otherwise broken, without the employment of a track construction for the same.

The invention has for another object the provision of a skid which is adaptable to roughened surfaces and which may be conveniently applied to flying machines, aeroplanes or the like, and one of such a structure that the same possesses durability and light weight so as to produce a device which is of great practical advantage in the art.

A further design of this invention is the special formation of a skid in which the sliding surfaces of the same are protected from engagement with gritty substances or the like which would impair the efficiency of the same.

For a full understanding of the invention reference is to be had to the following description and accompanying drawings, in which,

Figure 1 is a side elevation of the improved skid. Fig. 2 is a transverse section of the same. Fig. 3 is a detailed end view of one of the pulleys having the belt applied thereto. Fig. 4 is a detail in side elevation of one extremity of the skid.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

Referring to the drawings the numeral 10 designates a runner which is provided with a flattened surface and rounded corners and which is formed of a hard material which is highly polished to produce a surface which causes slight friction when brought in sliding connection with a belt 11. The runner 10 is curved upwardly at its opposite extremities for the purpose of rendering the same capable of passing over obstacles encountered on roughened surfaces without jarring the device supported thereon. The opposite extremities of the runner 10 are provided with forked brackets 12 which support rollers 13 in their upper forked extremities over which is passed the belt 11. The forked brackets 12 are adjustably secured upon the upper face of the runner 10 by means of set screws 14 which are inserted through slots longitudinally disposed in the brackets. The belt 11 is formed preferably from leather or like suitable material which is pliable and which is provided along its opposite edges with beads 15. The beads 15 are positioned upon the outer face of the belt 11 and are adapted for sliding engagement in guides 15 positioned along the opposite upper edges of the runner 10. The guides 16 each comprise a metallic strip which is secured along the upper face of the runner 10 adjacent the outer longitudinal edge thereof and which is curved downwardly and inwardly to engage the adjacent bead 15 to hold the edge of the belt 11 against the side of the runner 10. The belt 11 is provided upon its inner face with a suitable lubricant to reduce the frictional engagement between the same and the polished surface of the runner 10. The belt 11 extends over the runner 10 and the pulleys 13. The runner 10 is provided with upwardly projecting standards 17 which are disposed in pairs throughout the length of the runner 10 and which are diverged therefrom to admit of the free passage of the belt 11 therebetween. The standards 17 are adapted to be secured to an aero-plane or the like for the purpose of supporting the same.

In operation the skid is positioned upon the ground when the outer face of the belt 11 engages with the ground and the runner 10 is supported upon the upper lubricated face of the belt 11. When the skid is forced longitudinally the runner 10 is caused to slide over the belt 11 and to cause the movement of the belt beneath the runner 10 and over the pulleys 13. The guides 16 engage the beads 15 throughout the length of the runner 10 and hold the belt 11 in concaved position to engage about the polished surface of the runner 10. As the belt 11 reaches the end of the runner 10 at the rear extremity of the skid the same is released from the guide 16 and permitted to engage over the flattened surface of the adjacent pulley 13.

It is now seen that with a skid of this construction light bodies like flying machines

and aero-planes can be carried over the ground steadily as the runner 10 presents a plurality of contact points with the surface of the ground and causes the belt 11 to engage only the projected surfaces thereof and to thereby cause a steady and uniform traveling of the device.

The guides 16 and the heads 15 form a sealed joint upon the opposite sides of the runner 10 and thereby hold the belt 11 in such position that sand, dirt or any gritty substances can not gain access to the polished sliding surfaces of the runner 11.

Having thus described the invention what is claimed as new is:—

1. A skid of the class described comprising a runner, a belt engaged against the under face of said runner, guides longitudinally disposed upon the sides of said runner, beads formed upon the outer face of said belt adjacent the edges thereof for engagement with said guides, pulleys adjustably disposed at the opposite extremities of said runner for supporting said belt and standards upwardly extended from said runner.

2. A device of the class described comprising a runner having a lower curved polished surface, guides longitudinally disposed upon the opposite sides of said runner, forked brackets adjustably secured to the opposite extremities of said runner, a belt engaged over said pulleys for slidable contact with the polished surface of said runner and beads mounted upon the outer face of said belt adjacent the opposite edges thereof for engagement in said guides to retain said belt against said runner, to prevent access of grit to the same.

3. A device of the character described comprising a runner, standards upwardly extended from said runner to support the same, forked brackets adjustably disposed at the opposite extremities of said runner upon the upper face thereof, pulleys mounted in said brackets, a belt engaged over said pulleys, said belt extended downwardly from said pulleys beneath said runner, beads formed upon the outer face of said belt adjacent the edges thereof and guides positioned on said runner for engagement with said beads to hold said belt in sliding engagement with the lower face of said runner, to inclose the same from dirt or other gritty substances.

4. In a skid of the class described, the combination of a runner, pulleys disposed at the opposite extremities of said runner, a belt engaged over said pulleys and passed beneath said runner, guides disposed upon the opposite sides of said runner and beads carried upon the outer face of said belt adjacent the edges thereof for engagement in said guides.

5. In a skid as specified, the combination of a runner, standards disposed in pairs and upwardly diverged upon the said runner, forked brackets adjustably carried upon the upper face of said runner at the opposite extremities thereof, pulleys loosely mounted in said forked brackets, a belt positioned over said pulleys and extended beneath said runner, beads formed upon the outer face of said belt adjacent the opposite edges thereof and guides carried by said runner at the opposite upper edges of the same for engagement with said beads to retain said belt in concaved formation throughout the length of said runner.

In testimony whereof I affix my signature in presence of two witnesses.

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Witnesses:
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