Aug. 10, 1937. W. BALLWANZ 2,089,594

GLIDER GUN

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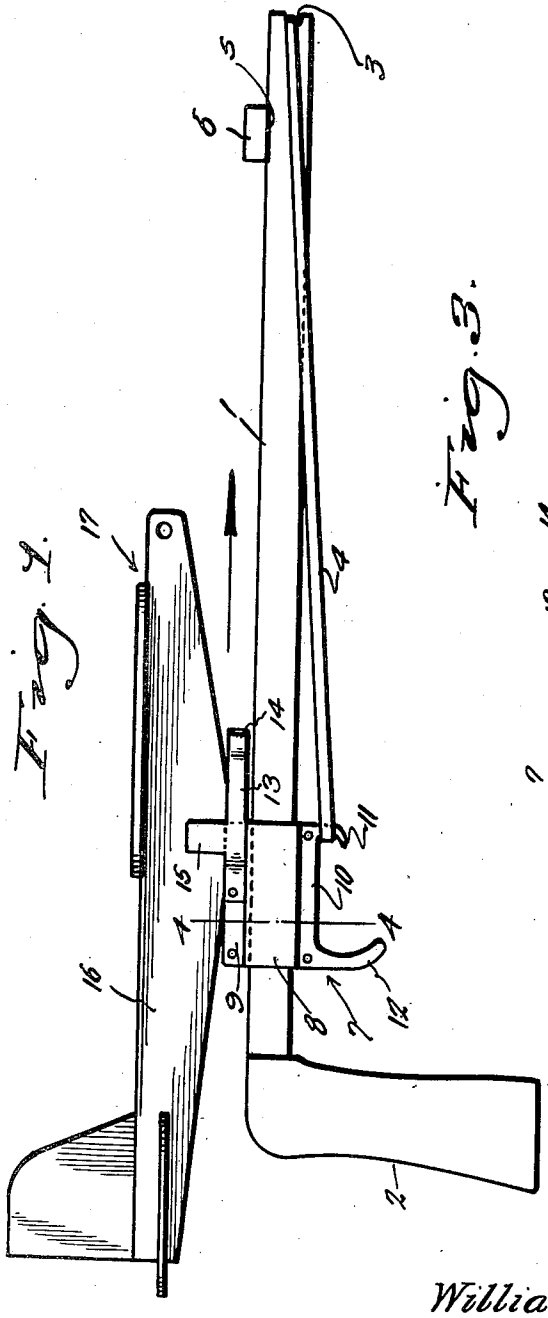


Fig. 1.

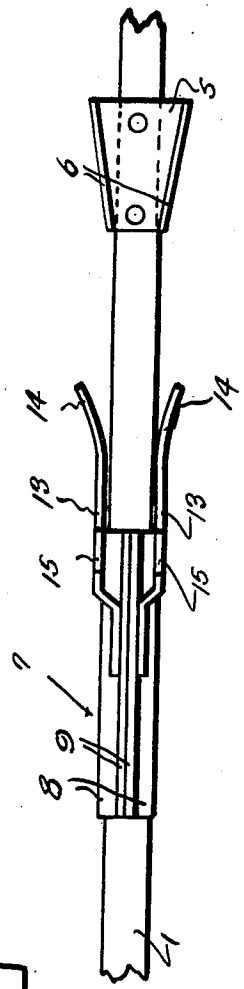


Fig. 3.

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Fig. 1.

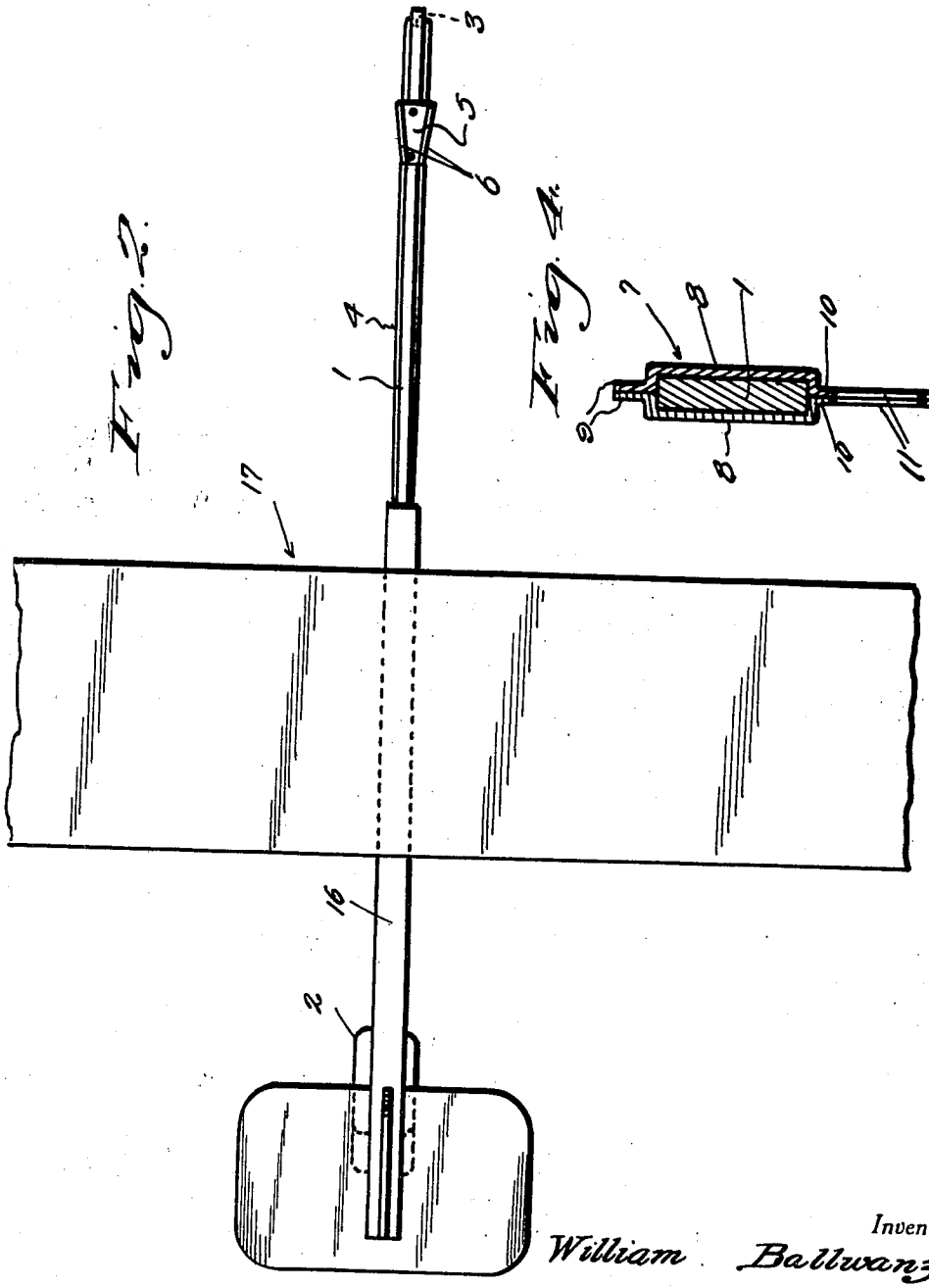


Fig. 2.

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UNITED STATES PATENT OFFICE

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GLIDER GUN

William Ballwanz, Chicago, Ill.

Application October 2, 1936, Serial No. 103,783

2 Claims. (Cl. 124—14)

The present invention relates to new and useful improvements in glider guns, particularly for launching toy gliders and has for its primary object to provide, in a manner as hereinafter set forth, a device of this character embodying novel means for securely holding the glider and releasing same at the proper time.

Other objects of the invention are to provide a glider gun of the aforementioned character which will be comparatively simple in construction, strong, durable, highly efficient and reliable in use, compact, light in weight, and which may be manufactured at low cost.

All of the foregoing and still further objects and advantages of the invention will become apparent from a study of the following specification, taken in connection with the accompanying drawings, wherein like characters of reference designate corresponding parts throughout the several views, and wherein:—

Figure 1 is a view in side elevation of the invention, showing a glider mounted in position thereon and ready to be launched.

Fig. 2 is a top plan view thereof.

Fig. 3 is a fragmentary view in top plan of the invention with the glider omitted.

Fig. 4 is a sectional view through the invention, taken substantially on the line 4—4 of Fig. 1.

Referring now to the drawings in detail, it will be seen that the embodiment of the invention has been illustrated and comprises a bar 1 of suitable material having fixed on one end thereof a pistol grip handle 2. The other end of the bar 1 is provided with a notch 3 for the reception of one or more rubber bands 4. The reference numerals 5 designate a substantially wedge shaped stop and release member which is mounted on the forward end portion of the bar 1, said member including upstanding flanges 6. The purpose of the member 5 will be presently set forth.

Slidably mounted on the bar 1 is a carriage which is designated generally by the reference numeral 7. The carriage 7 is of metal and includes a pair of complemental stampings 8 which are secured together in a manner to slidably enclose the bar 1, said stampings being shaped to provide upper and lower ribs 9 and 10, respectively. Integral hooks 11 and 12 depend from the lower ribs 10, the former being for engagement by the rubber band 4, the latter constituting a trigger or finger engaging means.

Mounted on the upstanding ribs 9 of the carriage 7 is a pair of forwardly projecting resilient fingers 13 which include outwardly curved forward end portions 14. Rising from the fingers 13, at an intermediate point, is a pair of jaws 15 which are adapted to grip the body or fuselage 16 of a toy glider therebetween, said toy glider being designated generally by the reference numeral 17.

It is thought that the operation of this device will be readily apparent from a consideration of the foregoing. The toy glider 17 is mounted between the jaws 15 on the carriage 7 and said carriage is retracted against the tension of the rubber band 4. Of course, the gun is held in one hand by the pistol grip handle 2 and the carriage 7 is held in retracted position with the index finger of said one hand. The carriage, with the glider thereon, is released and moved forwardly by the rubber band 4. As the carriage is approaching the forward end of the bar 1, the fingers 13 engage the forwardly diverging flanges 6 of the member 5 and are spread thereby, thus opening the jaws 15 and releasing the toy glider 17, thus completing the launching operation. The carriage 7 may then strike the rear end of the member 5 and said carriage is positively stopped thereby.

It is believed that the many advantages of a glider gun constructed in accordance with the present invention will be readily understood, and although a preferred embodiment of the device is as illustrated and described, it is to be understood that changes in the details of construction and in the combination and arrangement of parts may be resorted to which will fall within the scope of the invention as claimed.

What is claimed is:—

1. A toy glider gun of the class described comprising a bar, a handle on one end of said bar, the other end of said bar having a notch therein, a carriage slidably mounted on the bar, said carriage including a pair of duplicate, complemental half sections of metal secured together and further including upwardly and downwardly extending longitudinal ribs, oppositely curved hooks extending from the lower ribs, a rubber band engaged in the notch in the bar and in one of said hooks for actuating the carriage in one direction, the other hook constituting means for releasably holding the carriage in retracted position against the tension of the rubber band, resilient fingers mounted on the upper ribs and projecting forwardly from the carriage, upstanding jaws on said resilient fingers adapted to grip a glider for releasably securing same in position on the carriage, and means on the forward end portion of the bar for opening the jaws for releasing the glider.

2. A toy glider gun of the class described com-

prising a bar, a handle on one end of said bar, the other end of said bar having a notch therein, a carriage slidably mounted on the bar, said carriage including a pair of duplicate, complemental half sections of metal secured together and further including upwardly and downwardly extending longitudinal ribs, oppositely curved hooks extending from the lower ribs, a rubber band engaged in the notch in the bar and in one of said hooks for actuating the carriage in one direction, the other hook constituting means for releasably holding the carriage in retracted position against the tension of the rubber band, resilient fingers mounted on the upper ribs and projecting forwardly from the carriage, upstanding jaws on said resilient fingers adapted to grip a glider for releasably securing same in position on the carriage, and means on the forward end portion of the bar for opening the jaws for releasing the glider, said means including a substantially wedge-shaped member comprising upstanding, forwardly diverging flanges, the resilient fingers including outwardly curved free end portions engageable with the flanges for spreading said fingers in a manner to open the jaws.

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