No. 753,151. PATENTED FEB. 23, 1904.

T. LLOYD.

ROCKET.

APPLICATION FILED NOV. 9, 1903.

NO MODEL.

Fig. 1.

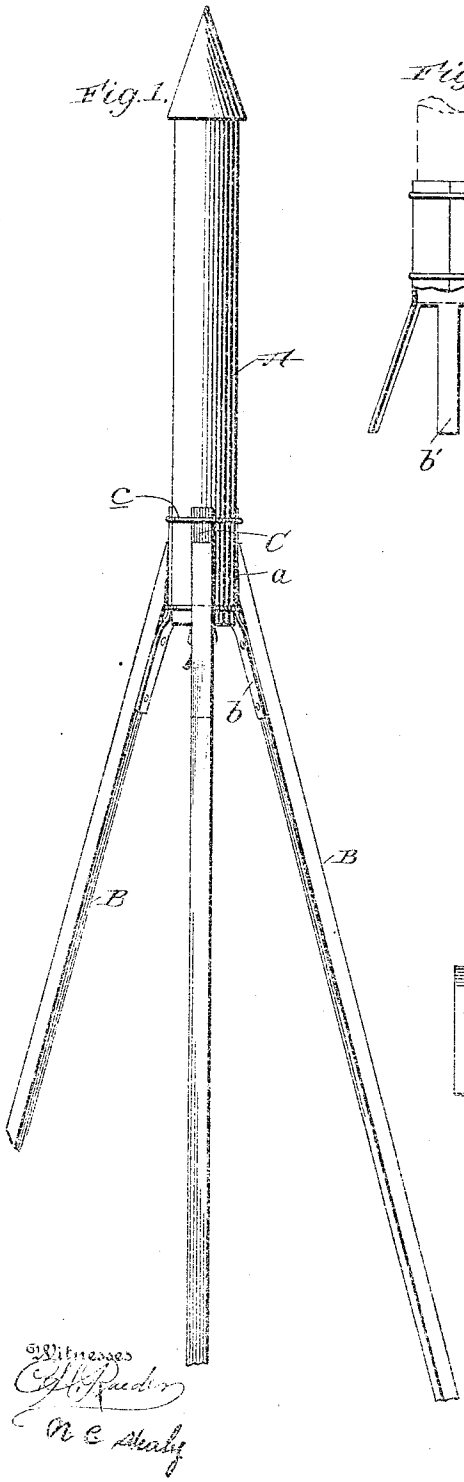


Fig. 4.

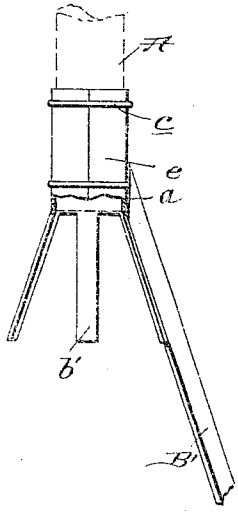


Fig. 3.

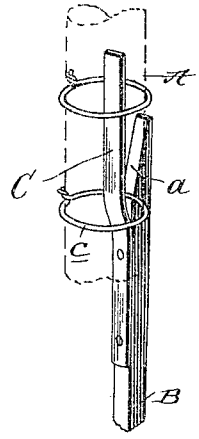


Fig. 2.

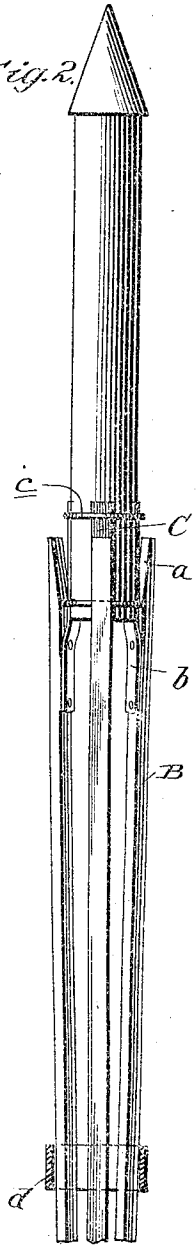
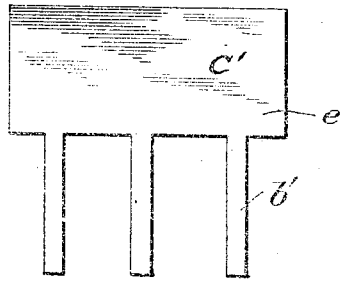


Fig. 5.



Witnesses
C. H. Pruden
A. E. Healy

Inventor
Thomas Lloyd.

By James J. Sheehy
Attorney

No. 753,151. Patented February 23, 1904.

UNITED STATES PATENT OFFICE.

THOMAS LLOYD, OF NEW YORK, N. Y.

ROCKET.

SPECIFICATION forming part of Letters Patent No. 753,151, dated February 23, 1904.

Application filed November 9, 1903. Serial No. 180,425. (No model.)

To all whom it may concern:

Be it known that I, THOMAS LLOYD, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented new and useful Improvements in Rockets, of which the following is a specification.

My invention pertains to rockets, more particularly rockets embodying means for supporting their bodies in an upright position precedent to firing thereof; and it consists in the novel and advantageous rocket hereinafter described, and particularly pointed out in the claims appended.

In the accompanying drawings, forming part of this specification, Figure 1 is an elevation, partly broken away, of my novel rocket as it appears when stood up ready to be fired; Fig. 2, an elevation, partly in section, illustrating the rocket prepared for storage or shipment; Fig. 3, a detail view illustrative of the manner in which the legs of the rocket are connected to the body thereof, the body being shown by dotted lines; Fig. 4, a view, partly in elevation and partly in section, illustrating a modified way of connecting legs to the rocket-body; and Fig. 5 a view of the blank employed in the latter construction.

Referring by letter to the said drawings, and more particularly Figs. 1 to 3 thereof, A is a rocket-body, which may be and preferably is of the ordinary well-known form and construction, and B B are legs of which there are preferably three, as illustrated. The said legs are of wood or other material suitable to the purpose and have their upper ends beveled at their inner sides, as indicated by *a*, for a purpose which will presently be pointed out. C C are spring-strips, preferably of sheet metal, connected to the body A and having portions *b*, which extend below the body and tend to spring outwardly, so as to normally rest in the position shown in Fig. 1. I prefer to connect the spring-strips to the body by wire bands *c*, surrounding the upper portions of the strips; but other means may obviously be used for the purpose without involving a departure from the scope of my invention. The legs B are fixedly connected below their beveled ends *a* to the depending portions *b* of the spring-strips C, and consequently when the legs are free the strips serve to hold them in the position shown in Fig. 1—*i. e.*, with their lower ends apart and their beveled upper ends *a* bearing against the side of the body A. In such position the legs B obviously constitute a stable support for the body A and this notwithstanding the fact that they are made very light in order to adapt them to fly with the body when the latter is fired.

When it is desired to adapt the rocket to be conveniently carried in the hand or packed for storage or shipment, the legs B are brought together, as shown in Fig. 2, and secured in such position by a band *d* of pasteboard or other suitable material removably placed thereon.

In the modified construction shown in Figs. 4 and 5 a blank C′ of sheet metal is employed in lieu of spring-strips to connect legs B′ to a rocket-body A. The said blank comprises a body *e*, which is bent around the lower portion of the rocket-body and secured thereon by wire bands *c* and strips *b′*, depending from the lower edge of the body *e*. These strips *b′* serve for the connection of the legs B′ below the beveled ends *a* thereof, and hence it follows that when the rocket is to be packed the said legs B′ may be placed in the same position as the legs B in Fig. 2, while when the rocket is to be fired the legs B′ may be bent out into the same position as the legs B in Fig. 1.

It will be readily appreciated from the foregoing that both embodiments of my invention are simple and inexpensive, and do not, therefore, materially increase the cost of making the rocket; also that, notwithstanding their cheapness, the improvements are reliable in operation—that is to say, may be depended on to properly support the rocket-body precedent to flight of the rocket.

I have entered into a detailed description of the construction and relative arrangement of the parts embraced in the present and preferred embodiments of my invention in order to impart a full, clear, and exact understand-

ing of the same. I do not desire, however, to be understood as confining myself to such specific construction and relative arrangement of parts, as such changes or modifications may be made in practice as fairly fall within the scope of my invention as claimed.

Having described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a rocket, the combination of a body, legs for supporting the body grouped about the same, and having beveled upper ends adapted when the legs are spread to bring up against the body and serve as stops to limit the spreading of the legs, and flexible strips secured on the body and fixed to the inner sides of the legs below the beveled ends thereof.

2. In a rocket, the combination of a body, and outwardly spring-pressed legs for supporting the body, connected with the same.

3. In a rocket, the combination of a body, legs for supporting the body, and spring-strips secured on the body and fixed to the legs, and tending to hold the legs in an open or spread position.

4. In a rocket, the combination of a body, and outwardly spring-pressed legs for supporting the body, connected with the body, and having beveled upper ends grouped about the same.

5. In a rocket, the combination of a body, legs for supporting the body, having beveled ends grouped about the same, and spring-strips secured on the body and fixed to the legs, below the beveled ends thereof, and tending to hold the legs in an open or spread position.

6. In a rocket, the combination of a body, legs for supporting the body, having beveled ends grouped about the same, spring-strips having upper portions grouped about the body, and normally outwardly-extending portions fixed to the legs, and one or more bands surrounding the upper portions of the spring-strips and the body.

7. The combination, in a rocket, of a body, outwardly-spring-pressed legs for supporting the body, connected with the same, and a band removably placed on the legs, and adapted to hold them together.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

THOMAS LLOYD.

Witnesses:
GEO. H. DE LEON,
RUTHERFORD S. FOWLER.