Dec. 6, 1927. 1,651,716

H. KLEMM

FLYING MACHINE

Filed July 18, 1924

Fig. 1.

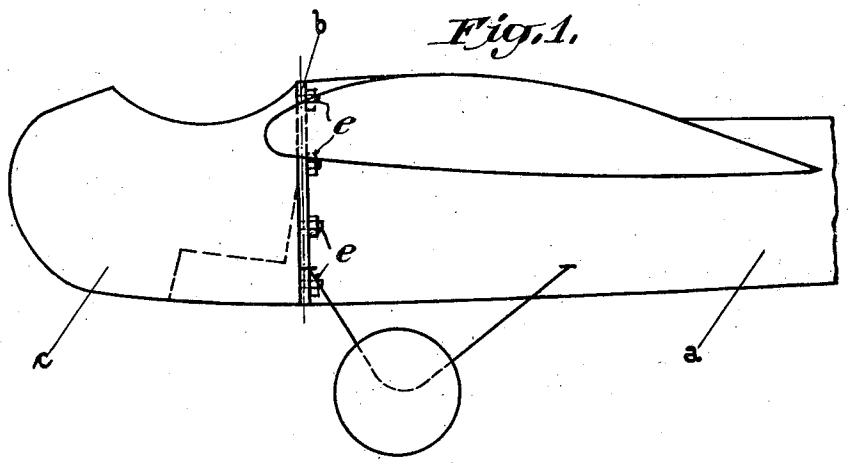
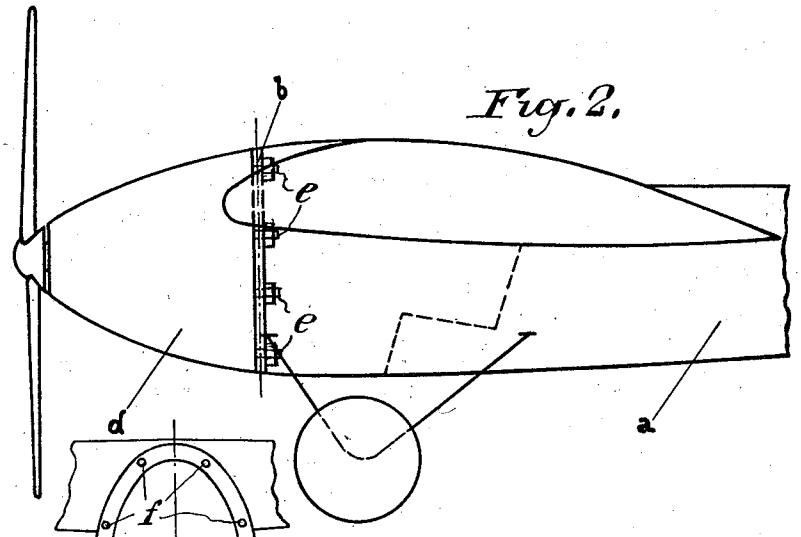


Fig. 2.



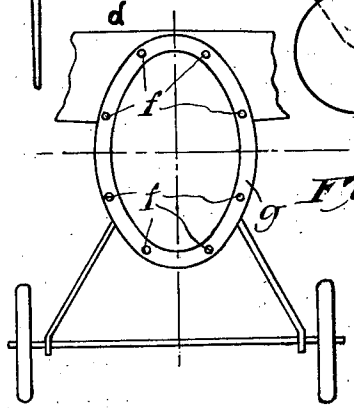


Fig. 3.

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UNITED STATES PATENT OFFICE.

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FLYING MACHINE.

Application filed July 18, 1924, Serial No. 726,651, and in Germany July 27, 1923.

This invention relates to a flying machine which permits to be used as a motor-driven machine, as well as a glider. The gliders devised hitherto must be hauled to the starting-place in order to get into that position in which they can become operative. The object of this invention is to obviate that drawback, and for this purpose the present improved flying machine is so devised that it can fly with motor power to the starting place of the gliders, where then the head of the hull with the motor and the propeller is detached from the body of the hull and replaced by another head, viz, of such a kind or shape as used with gliders. The range of the applicability of this flying machine is obviously larger than that of the motor-driven flying machines and of the gliders now in use.

My invention is illustrated diagrammatically and by way of example in the accompanying drawing in which Figure 1 is a side-view of the improved flying machine in its state as glider, and Figure 2 shows the same machine in its state as motor-driven machine, the tail-end of the machine being in both figures omitted. Fig. 3 shows the front view of the hull body part.

The hull is divided at *b* into a body-part *a* and a head-part *c* (Fig. 1), or *d* (Fig. 2), respectively. The parts *c* and *d* may be exchanged, *d* being attached to the body-part *a* when the machine is to fly to the starting place of the gliders, and *c* being substituted for *d* at this place, whereby the motor-driven machine is converted into a glider.

The head *c* is so devised as to afford a seat or support for the driver, whereby an unfavorable shifting of the point of gravity as might be caused by the removal of the head *d* with the motor and the propeller, i. e. by the reduction of the weight of the head of the machine, is made up for, as the driver forms a weight to balance the apparatus, when the motorless head *c* is attached. The body part is also provided with a driver's seat, indicated by dotted lines in Fig. 2, so that, when the motor head is attached, the weight of the driver seated in the last named seat will compensate for the additional weight of the motor and propeller and thereby balance said machine.

The constructional form of the hull-parts at the places of junction *b* may be as desired. The head parts may be provided, for instance, with bolts *e* fitting into bores *f* provided in the attachment flange *g* of the body part. These bolts are slipped into the bores *f* and fixed therein by means of nuts as indicated by dotted lines in Fig. 1, thereby forming a detachable connection for securing either head part to said body part. It is obvious that many constructional forms are possible without departing from the invention.

I claim:

1. A flying apparatus of the glider type, having a hull body-part and a pair of head parts constructed and arranged to be detachably and interchangeably connected to said body-part, one of said head-parts being provided with a driver's seat and when attached to said body-part serving with the weight of the driver to balance said apparatus, the other of said head-parts being provided with a motor and a propeller, said body-part being also provided with a driver's seat so that the weight of a driver seated in said last named seat will compensate for the additional weight of said motor and propeller and thereby balance said machine.

2. A flying apparatus adapted to be converted from a glider to a power-driven aeroplane comprising a hull body-part carrying the wing structure and a pair of head-parts constructed and arranged to be detachably and interchangeably connected to the body-part forward of the wing connection to the body-part, one of said head-parts being provided with a seat for the operator, the other of said head parts being provided with power propelling means, and a seat in the body part for use by the operator when the last-named head-part is attached to the body-part.

3. A flying machine adapted to be used either as a power-driven aeroplane or as a glider comprising a single body-part and two interchangeable head-parts, one of said head-parts containing power propelling mechanism and the other head-part containing a seat for the operator, and detachable connections for securing either head-part to said body-part.

4. A flying apparatus of the glider type, having a hull body-part and a pair of head parts constructed and arranged to be detach-

ably and interchangeably connected to said body-part, one of said head-parts being motorless and provided with a support for a weight, to balance said apparatus when attached to said body part, the other of said head-parts being provided with a motor and a propeller, said body-part being also provided with a driver's seat so that the weight of a driver seated in said last named seat will compensate for the additional weight of said motor and propeller and thereby balance said machine.

In testimony whereof I affix my signature.

HANNS KLEMM.