

L. SCHMIDL.
AEROPLANE.
APPLICATION FILED APR. 4, 1911.

1,046,028.

Patented Dec. 3, 1912.

Fig. 1.

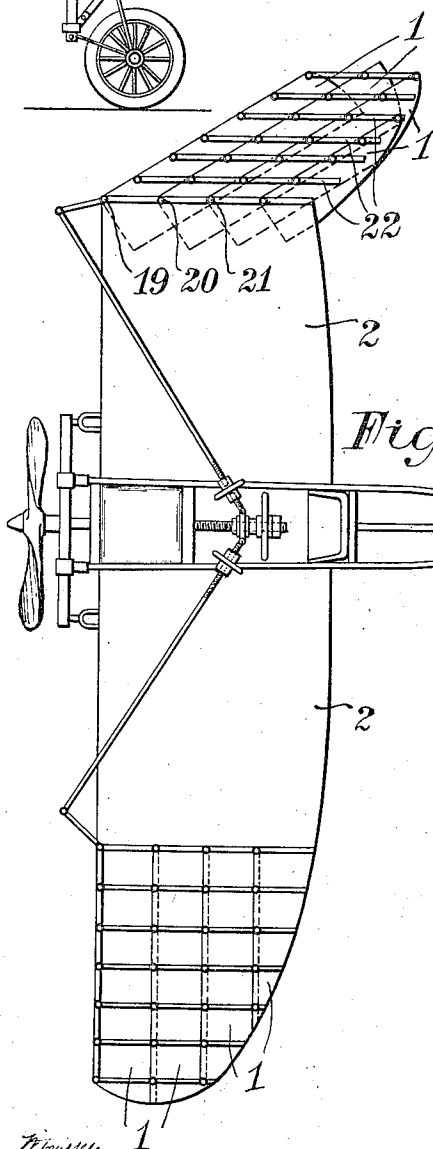
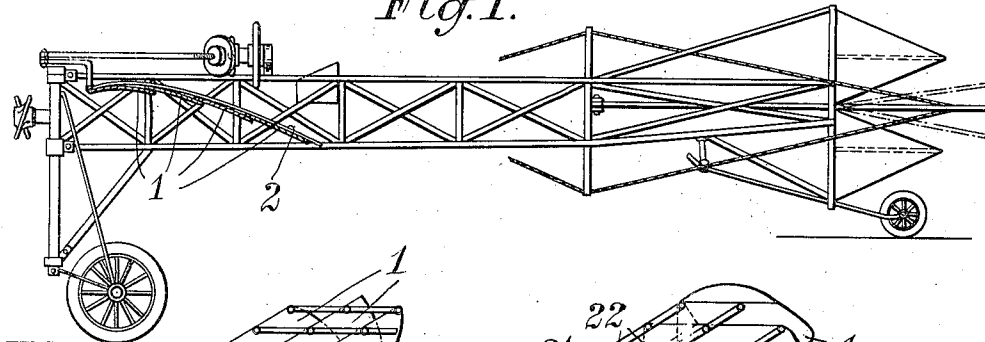


Fig. 2.

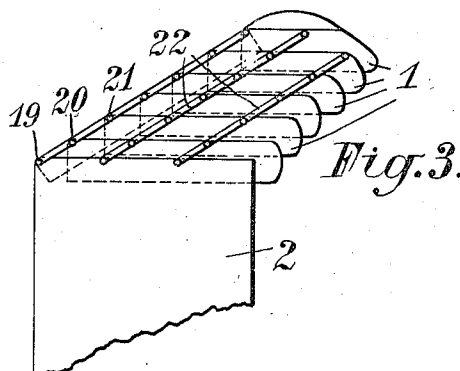


Fig. 3.

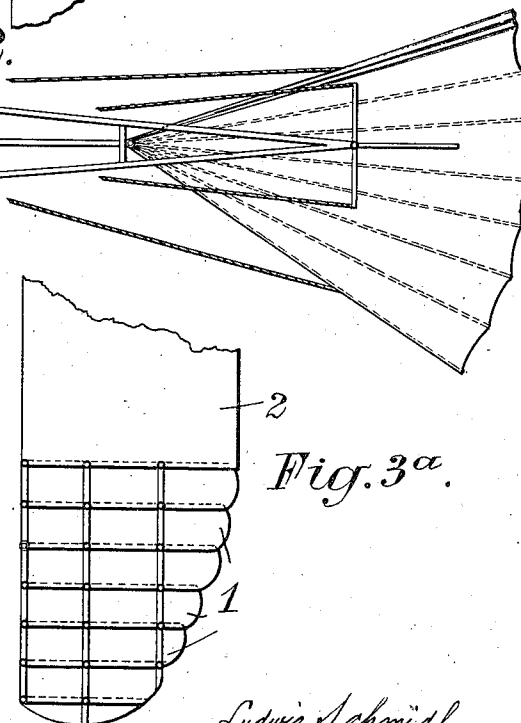


Fig. 3^a.

Witness:
E. Daniels.
C. H. Potter.

Ludwig Schmid,
Inventor,
by Rymer, Townsend & Dickson,
Attorneys.

UNITED STATES PATENT OFFICE.

LUDWIG SCHMIDL, OF WR. NEUSTADT, AUSTRIA-HUNGARY.

AEROPLANE.

1,046,028.

Specification of Letters Patent. Patented Dec. 3, 1912.

Application filed April 4, 1911. Serial No. 618,925.

To all whom it may concern:

Be it known that I, LUDWIG SCHMIDL, captain in the Austrian Army, of Wr. Neustadt, Burgleitnergasse 30, Lower Austria, in the Empire of Austria-Hungary, have invented an Aeroplane; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The present invention refers to a flying machine of the aeroplane type, having the ends of the supporting or other surfaces provided with wings, adapted to be folded and therefore of changeable dimensions, the object being to steer the aeroplane and also to facilitate its starting. These folding wings consist of a series of lamellar portions, disposed consecutively and extending in the longitudinal or the transverse direction of the supporting surfaces. These lamellar portions are connected with each other by articulated rods in such a way that they are displaced parallel to each other when the wings are set, and arrange themselves in a scale-like fashion when the wings are closed. By this arrangement of the folding wings, which differs from the arrangement of the wings heretofore used in that the latter consist of parts which open around a common center of motion like a fan, I obtain the advantage that the frontal resistance with closed as well as with open wings is considerably lessened. Furthermore the angle of incidence is maintained, when the wing, which is adapted to the curvature of the supporting surface, is closed, whereas all single or multiple folding parts turning around a vertical axis are liable to undergo a change of their position in respect to the supporting surface.

The drawings show two different instances of disposition of these folding wings applied to a monoplane.

In the first instance as shown by Figures 1 and 2, the folding parts, which have in general rectangular shape, are disposed transversely to the longitudinal direction of the supporting surfaces 2, and arranged consecutively; at the shorter side of the support-

ing surface they are so arranged that each 50 of them can turn in its own plane around pivots 19, 20, 21. These folding parts are connected one with the other by a number of articulated transversal rods 22, so as to form with them a parallelogram. The result is, 55 that, if the wing is set,—which is done by one of the known devices as a drawing rod, or the like, the folding parts move in the direction of their plane parallel to each other, and, when the wing is closed, that they dis- 60 pose themselves in a scale-like fashion as shown by Fig. 1, right hand side.

The disposition represented by Figs. 3 and 3^a differs from the first only in that the folding parts are arranged consecutively in the 65 longitudinal direction of the supporting surface. In this case the folding parts are at least in two places so arranged, that they turn around the rods 22 which intersect them at a right angle whereas the rods them- 70 selves are connected with the shorter side of the supporting surface. The results with this arrangement of the folding parts are the same as in the first instance.

The same arrangement can be adapted in 75 an identical way to the steering tail.

What I claim as my invention and desire to secure by Letters Patent is:

1. An aeroplane comprising a rigid supporting and stabilizing plane, a wing on 80 each end of said plane, each wing consisting of a series of adjacent lamellar portions substantially parallel to the supporting surface, each of said portions being separately pivoted to said plane and arranged to operate 85 in the same plane with respect to said stabilizing plane, and means for extending and withdrawing said wings.

2. An aeroplane comprising a rigid supporting and stabilizing plane, a wing on 90 each end of said plane, each wing consisting of a series of adjacent lamellar portions substantially parallel to the supporting surface, each of said portions being separately pivoted to said plane, rods connecting said portions, and means for moving said portions 95 on their pivots simultaneously in extending and withdrawing them.

3. An aeroplane comprising a rigid supporting and stabilizing plane, a wing on each end of said plane, each wing consisting of a series of adjacent lamellar portions,
5 each of the portions adapted to be operated so that it rotates about a separate pivot and has a constant parallel displacement with

respect to the other portions, either in the extended or the withdrawn position of the wings.

LUDWIG SCHMIDL.

Witnesses:

AUGUST FUGGER,
ALBIN SCHILLER.