May 9, 1950 R. G. RYMER 2,507,053

CONTROL HANDLE FOR MODEL AIRPLANES

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Fig. 1

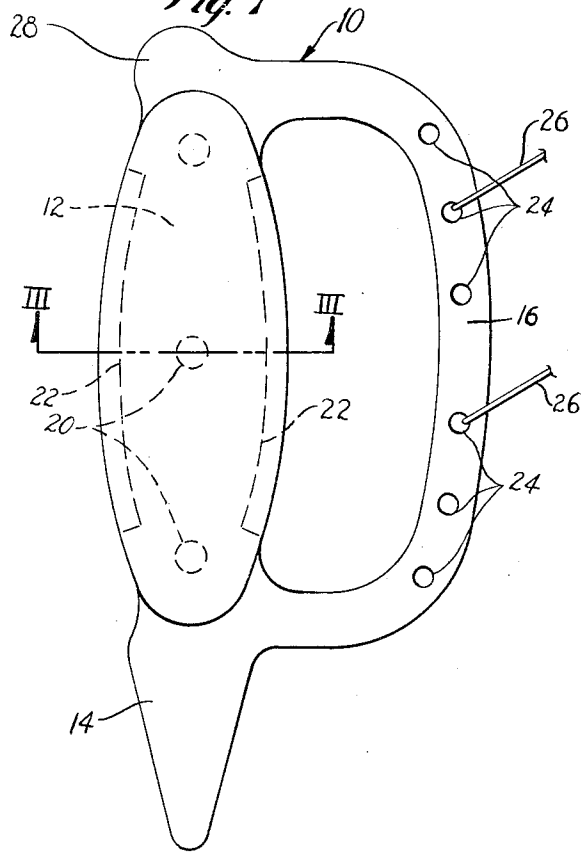
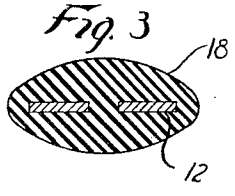


Fig. 2



Fig. 3



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CONTROL HANDLE FOR MODEL AIRPLANES

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5 Claims. (Cl. 46—1)

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This invention relates to control grips or handles for controlling "U-Control" model airplanes before and during flight.

The model airplane hobby, which started many years ago, substantially concurrent with the development of full sized airplanes, has within the last decade been encouraged and accelerated by the development and manufacture of small but powerful engines particularly designed for use on model airplanes. One of the most popular of the model airplanes has been the "U-Control" model which is adapted to be secured by fine wires, usually 50 or 75 feet in length, so that the model will fly in a circle around the operator standing at the center of the circle and holding on to the control wires. It will be understood that the control wires are two in number, ordinarily, and that by pulling on one or the other of the wires the elevators on the model airplane are controlled to guide the airplane in flight. The term "U-Control" is not a trademark but is merely a name or designation which has been rather widely adopted and used in the model airplane field to refer to flying models controlled by the operator through fine wires when in flight.

Heretofore, the operator end of the control wires are secured to a grip, for example, to opposite ends of a handle portion. The operator of the airplane, who is usually the builder also, will position the grip at the center of the circle and will walk back to his airplane to help get the motor started. Once the motor is started, he will quickly run back to the center of the circle and pick up the grip, and particularly under the stress and excitement of competition in model airplane meets, the operator will sometimes have difficulty in recalling which end of the grip is up, and is to be moved to give up elevator. Also, on known grips there is no adequate provision for adjustably connecting the control wires to the grip, and the result is that a very small movement of the control grip may cause a relatively large movement of the airplane elevators, or vice versa, making the airplane very difficult to control in flight. Moreover, if the flying field is muddy, the control grip will in turn become muddy which is obviously objectionable.

It is the general object of my invention to avoid and overcome the foregoing and other difficulties of and objections to known devices for controlling "U-Control" model airplanes in flight by the provision of an improved, relatively inexpensive, control grip characterized by a fully

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molded handle portion, means parallel to but spaced from the handle portion providing a considerable number of selectable points to which the control wires may be secured, and by means associated with the handle portion which spear down into the ground, when desired, to always maintain the grip in proper position and free from dirt, and ready for instantaneous flying.

Another object of my invention is to provide a grip of the character described made from a single integral piece of sheet metal, ordinarily by stamping operation, and to provide a fully formed handle thereon by molding or otherwise securing rubber or other plastic thereto.

The foregoing objects of my invention, and other objects which will become apparent as the description proceeds, are achieved by the provision of a "U-Control" grip including a dagger-shaped body having a blade adapted to be pressed into the ground, a handle associated with the blade, and means carried by the handle providing more than two selectable points of attachment for the control wires, said blade handle and means usually made from a single integral piece of sheet metal, and with a plastic handle body being molded around the handle.

For a better understanding of the invention reference should be had to the accompanying drawings wherein,

Fig. 1 is a side elevation of a best known embodiment of the invention;

Fig. 2 is an end elevation of the grip illustrated in Fig. 1; and

Fig. 3 is a transverse cross-sectional view through the handle taken substantially on line III—III of Fig. 1.

In the drawings, the numeral 10 indicates generally a dagger-shaped piece of sheet metal having a handle portion 12 and extending leg portion 14, and a C-shaped portion 16 carried by the handle portion and positioned substantially parallel to the handle portion. Preferably the several portions described are integral and are stamped as a single piece from a flat sheet of sheet metal, such as aluminum or steel.

The handle portion 12 is ordinarily provided with body forming means to provide a round, smooth, easily grasped grip of appreciable thickness fitting comfortably in the palm and fingers of the user of the grip. The provision of the body on the handle portion may be achieved in a variety of ways, for example, by fastening wood or plastic halves to the handle portion with rivets or other suitable means. However, the body portion is most conveniently secured to

the handle portion by molding a body of rubber or other suitable plastic, such as designated by the numeral 18, around the handle portion 12. To insure an adequate bond between the body portion 18 and handle portion 12, I preferably provide a plurality of apertures 20 in the handle portion 12 through which the rubber of the body portion 18 will flow during the vulcanizing operation to securely lock the body portion 18 on the handle portion 12. Also, the sides of the handle portion 12 are stamped to have a width somewhat smaller than the width of the body portion 18, as indicated by the line 22 to further lock the body portion in place and to prevent the edge of the handle portion 12 from ever coming out to the surface of the body portion to cut or aggravate the fingers or palm of the operator.

The blade portion 14 of the grip is made of any desired length or shape, it being understood that the function of the blade is to permit the blade to be speared down into the ground to support the grip in an upright position during the time that the airplane, the control wires, and the grip are being readied for a flight of the airplane. The blade 14 is ordinarily at least several inches long to achieve the desired action. The C-shaped portion 16 of the grip is provided with a plurality of holes 24 which provide selectable points for attachment of the airplane control wires, indicated by the numeral 26. It will be recognized that by providing a plurality of the holes 24 along the portion 16 of the grip, that the operator may select any two of the holes to receive the control cables 26. If the holes selected are the holes nearest together, then tilting the grip in use will effect a relatively small movement of the control wires. On the other hand, if the holes 24 which are the greatest distance apart are selected to receive the control wires, then the tilting of the grip during the control of the model airplane will effect the greatest possible movement of the control wires. In this way the grip can be adapted to best control any particuar model airplane in flight.

An ear 28 may be formed integral with the top of the handle portion 12, and the operator may hook his thumb over the ear 28 when holding the grip to further insure a particularly positive gripping and controlling action.

From the foregoing it will be recognized that the various objects of the invention have been achieved by the provision of a relatively simple, inexpensive control grip for model airplanes, and characterized by means for positioning the grip vertically in relation to the airplane, and for facilitating the best possible control connection between the grip and a model airplane.

While in accord with the patent statutes one embodiment of the invention has been illustrated and described in detail, none the less, I am not to be limited thereto or thereby, the scope of the invention being defined in the appended claims.

I claim:

1. A handle for controlling and holding a "U-Control" model airplane in flight, comprising a single flat plate of metal formed with an elongated body portion including a handle area and a pointed short, stubby dagger-like area at one end of the handle area, said single flat plate including a C-shaped portion joining integrally with the body portion at both ends of the handle area, said C-shaped portion having a plurality of holes therein for adjustable attachment of control wires, a handle grip of plastic molded around and through the handle area of the body portion, and an ear on the upper end of the body portion on which the operator's thumb is adapted to rest.

2. A handle for controlling and holding a "U-Control" model airplane in flight, comprising a single flat plate of metal formed with an elongated body portion including a handle area, said single flat plate including a C-shaped portion joining integrally with the body portion at both ends of the handle area, said C-shaped portion having a plurality of specially defined points of attachment for control wires, a handle grip of plastic molded around and through the handle area of the body portion, and an ear on the upper end of the body portion on which the operator's thumb is adapted to rest.

3. A control grip for "U-Control" model airplanes including a dagger-shaped body having a blade adapted to be pressed into the ground, a handle associated with the blade, and flat means carried by the handle and having holes formed therein for providing more than two selectable points of attachment for the control wires, said blade, handle and means comprising a single piece of sheet metal, and a plastic handle body molded around the handle.

4. A control grip for "U-Control" model airplanes including a dagger-shaped body having a blade adapted to be pressed into the ground, a handle secured to the blade, and means carried by the handle and having a plurality of holes therein for providing more than two selectable points of attachment for the control wires, and a plastic handle body molded around the handle.

5. A control grip for "U-Control" model airplanes including a short dagger-shaped body having a blade adapted to be pressed into the ground, a handle associated with the blade and means carried by the handle providing more than two fixedly located but selectable points of attachment for the control wires, said blade, handle and means comprising a single piece of sheet metal.

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