

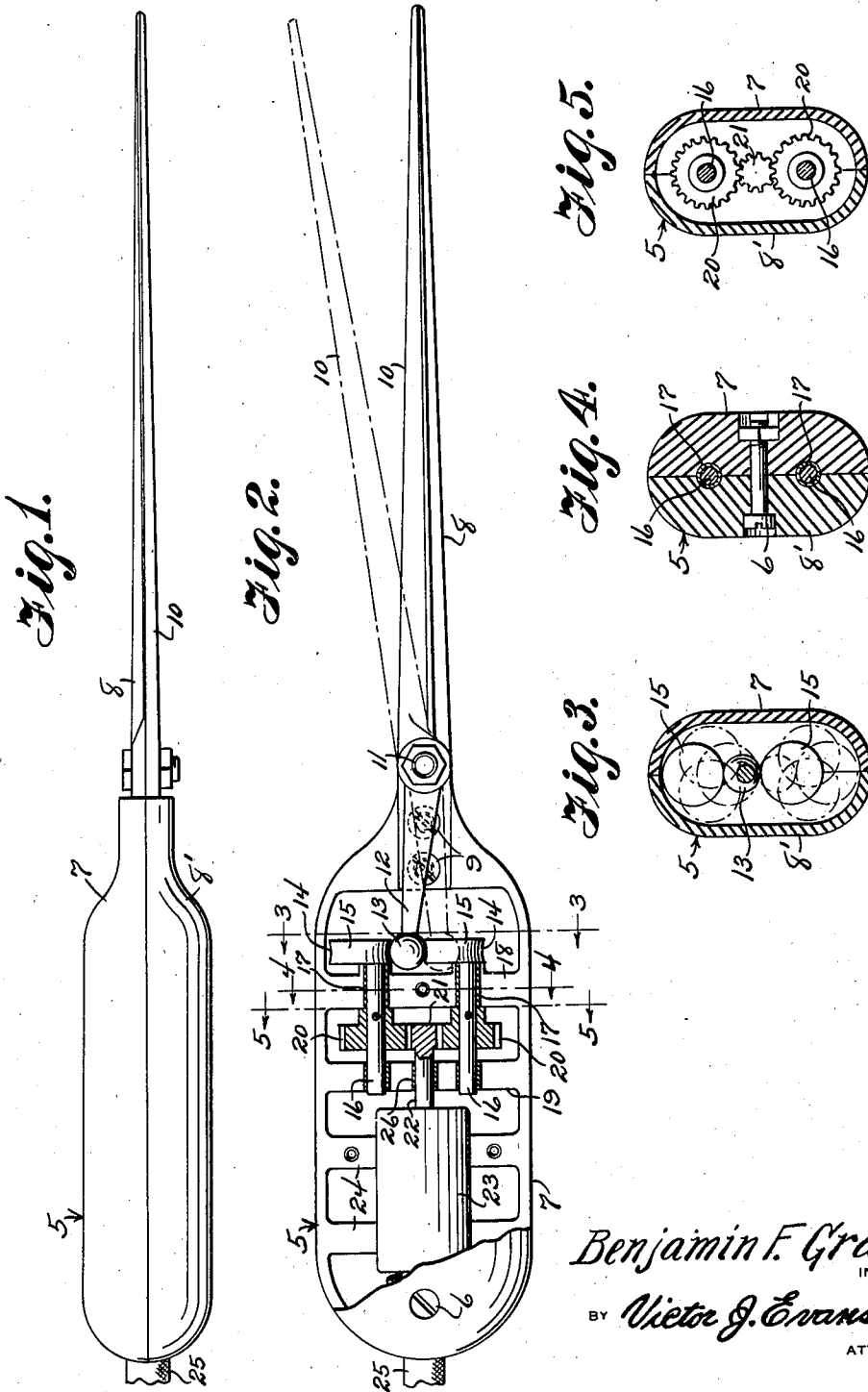
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SHEARS

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SHEARS

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1 Claim. (Cl. 30—247)

My invention relates to shears and more particularly to power driven shears or scissors and has for one of the principal objects thereof the provision of a pair of shears or the like having improved power transmitting means to the movable blade of the shears, whereby to effect a maximum of power and efficiency.

Another object of my device is to provide shears equipped with a motor for operating the same and constituting a contained element of the shears so that the device is entirely portable and may be conveniently moved and operated under any desired condition.

A further object of my invention is to provide shears of the above described character so constructed and arranged as to effect a maximum of efficiency with a minimum of weight and an economy of power.

A special object of my invention is to provide a device of the above described character, which is simple in construction, durable in use, reliable and efficient in operation and economical in manufacture.

Other objects and advantages will be apparent from the following description, appended claim and annexed drawing.

Referring to the drawing wherein like reference characters designate like parts throughout the several views:

Figure 1 is a top plan view of my invention.

Figure 2 is a side elevation thereof, partly in section.

Figures 3, 4 and 5 are sectional views taken on the lines 3—3, 4—4 and 5—5 respectively of Figure 2.

In practicing my invention, I provide shears having a sectional hollow handle 5, the sections of which are secured together by means of screws 6 or the like. Fixed within the front end of one of the handle sections 7 is the rear end of a shear blade 8, said shear blade being fixed to the handle section by means of screws 9 as clearly illustrated in Figure 2 of the drawing. Pivotaly mounted on the blade 8 adjacent the front end of the handle 5 is the rear end of an oscillating blade 10 adapted for coaction with the blade 8 to effect shearing or cutting of various materials, for instance hair. The rear end of the blade 10 is pivotaly connected to the blade 8 by means of a bolt and nut 11 and said rear end of the blade 10 is fashioned with an arm 12 extending through a transverse flap (not shown) into the section 8 of the handle and is formed on the inwardly extending end with a ball 13 for engagement with grooved peripheral faces 14 of a pair of oppositely disposed discs 15 eccentrically mounted on the front end of a pair of driven shafts 16 journaled in a pair of spaced bearings 17 fixed to and extending

through front and rear transversely extending sectional partitions 18 and 19 respectively formed integral with the respective handle section 7 and 9 within said handle.

Fixed on said shafts 16, between the partitions 18 and 19, are a pair of spaced gears 20 meshing with a drive gear 21 interposed therebetween and fixed on the front end of an armature shaft 22 of an electric motor 23 secured within said handle within spaced partitions 24. The electric motor has connected thereto an electric conduit 25 from a source of electric current (not shown) and said conduit extends through said handle at the rear end thereof. The shaft 22 is journaled in a bearing 26 mounted in the partition 19.

In operation, when current is supplied to the motor 23 through the conduit 25, the motor is operated and drive gear 21 mounted on the armature shaft 22. Operation of the gear 21 serves to effect operation of the gears 20 on the shafts 16 causing actuation of the disc 14 which in turn reciprocates the arm 12 of the blade 10 through the medium of the ball 13. Obviously, reciprocation of the arm 12, serves to effect oscillation of the blade 10 relative to the blade 8 and thereby enables said blades to coact with each other to effect shearing or cutting of material.

It is understood, that the handle 5 may be constructed of a relative light material and of an insulating substance whereby to protect the hand of an operator from shock or the like should short-circuiting of the motor occur. Also, it is to be distinctly understood, that various changes and modifications may be resorted to in the construction and arrangement of the various parts without departing from the spirit of the invention if within the scope of the appended claim. Furthermore, it is to be understood that while I have shown and described the discs 14 as being eccentrically mounted on the shafts 16, the same may be in the form of cams fixed to the shafts 16.

What is claimed is:

A device of the character described, comprising, a handle, a shear blade fixed to said handle, a coacting shear blade pivoted to said first-mentioned blade and fashioned with an operating arm extending within said handle, a motor carried within said handle, a pair of spaced eccentrically mounted discs within said handle and fashioned with grooved peripheral faces, means connecting said motor to said discs whereby to effect eccentric rotations of said discs, and a ball fashioned on the end of said arm and seated within said grooved peripheral faces of said discs whereby to effect operation of said coacting blade upon actuation of said motor.

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