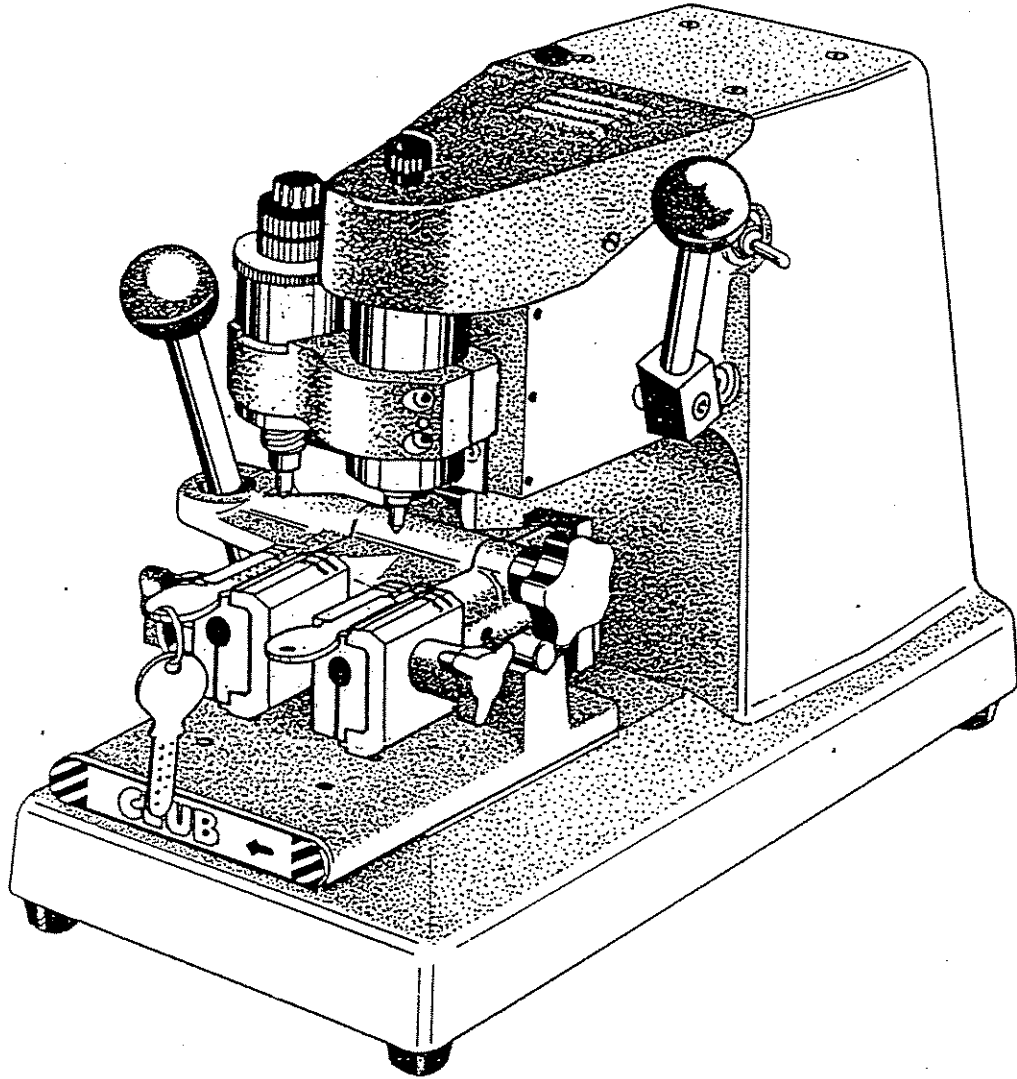


# CLUB



OPERATION AND  
MAINTENANCE  
HANDBOOK



Thank you for choosing one of Silca's key cutting machines. This machine has been designed, tested and produced in our factory using the most modern technology to provide you with many excellent years of precision key duplicating. Before use, it is advisable to read the information presented in this manual, thoroughly.

The proper care and maintenance that your machine requires is also detailed in this handbook.

By following these instructions explicitly you will ensure a long and trouble free life for your machine.

Whenever anything is at all unclear, please don't hesitate to contact your supplier, who directly or by means of Silca's Technical Service Department will provide you with the best possible service and assistance you require.

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THE MAIN WORKING PARTS

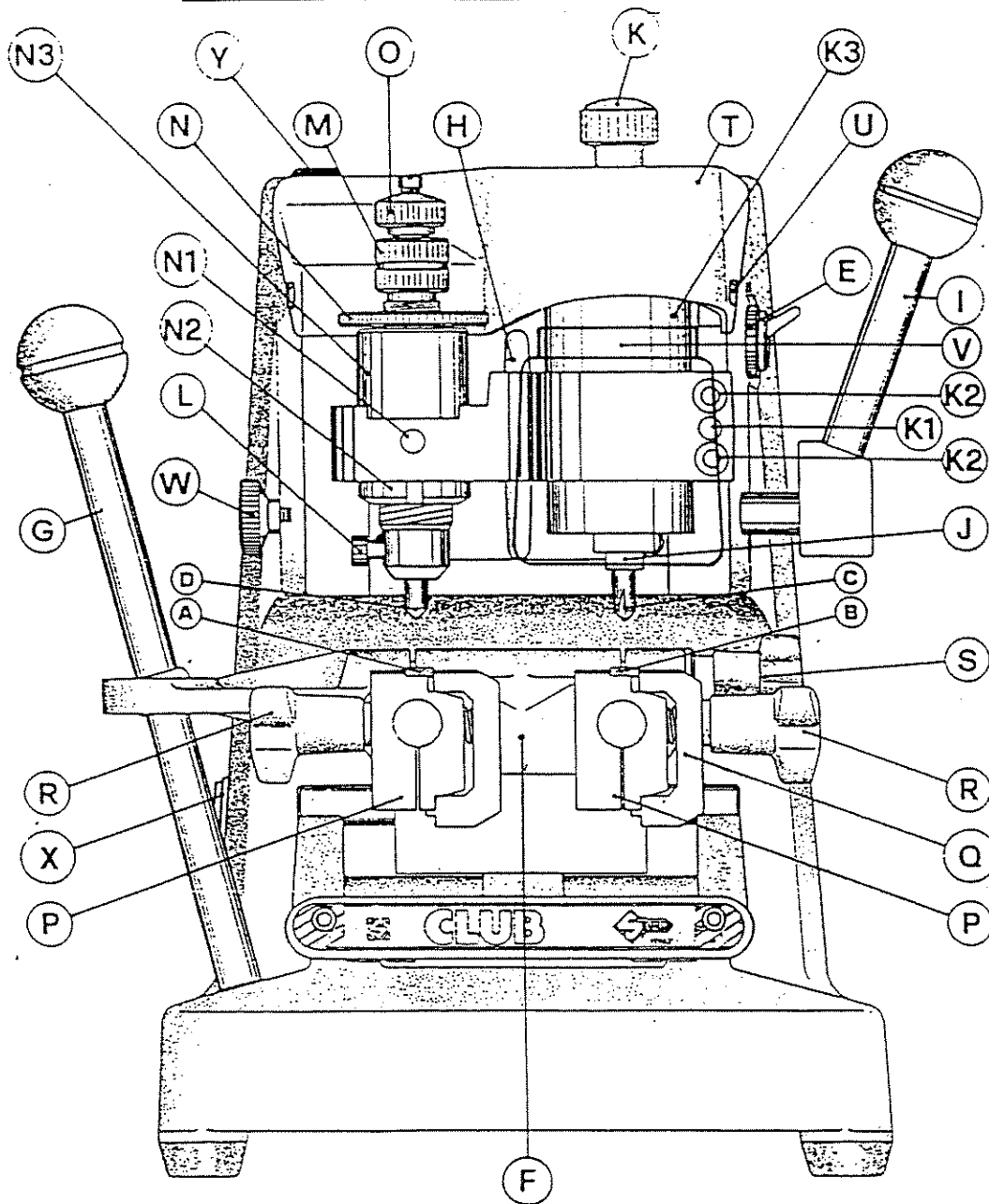


fig.1


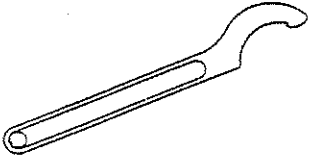
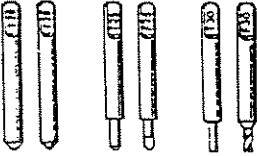
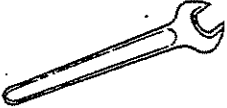
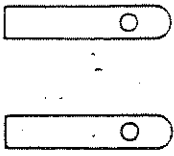
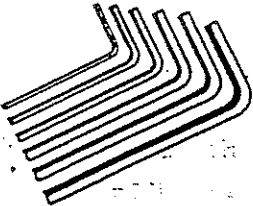
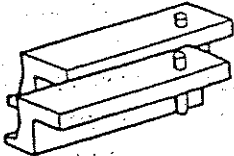
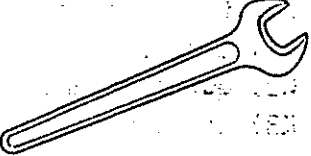
- |                                      |                                       |
|--------------------------------------|---------------------------------------|
| A) Original key                      | N) Adjustment screw locking nut       |
| B) Keyblank                          | N1) Allen screw                       |
| C) Cutter                            | N2) Ring nut                          |
| D) Tracer point                      | N3) Tracer point holder               |
| E) Motor ON/OFF switch               | O) Spring loaded release nut          |
| F) Lower carriage                    | P) Inner jaw                          |
| G) Lower carriage lever              | Q) Outer jaw                          |
| H) Upper carriage                    | R) Jaw handle                         |
| I) Upper carriage lever              | S) Locking screw for angular movement |
| J) Cutter chuck                      | T) Protective casing                  |
| K) Cutter chuck locking nut          | U) Protective casing screws           |
| K1) Central grub screw               | V) Safety shields                     |
| K2) Outer screws                     | W) Upper carriage locking screw       |
| K3) Spindle                          | X) Mains switch                       |
| L) Tracer point locking screw        | Y) Lamp socket                        |
| M) Adjustment screw for tracer point |                                       |

DESCRIPTION AND TECHNICAL DATA

The CLUB is a highly reliable keycutting machine. Extremely simple to operate. It cuts high security flat keys requiring vertical, angled or lateral cuts.

- MOTOR : Single phase high speed type. 110volts 60hz.
- CUTTERS : Boring and milling types.
- TRANSMISSION : Pulley with elastic belt drive.
- MOVEMENT : On hardened ground roller type rail tracks.
- JAWS : Can be set, with synchronized movement, at any angle up to 45° in either direction. Rotating outer jaws.
- DIMENSIONS : Width 7.874", Height 11.417", Length 13.780".
- WEIGHT : 30.86 lbs.
- SAFETY SHIELD : Plastic protection screen.  
 IMPORTANT! The shield must always be used whilst cutting.

ACCESSORIES AND TOOLS PROVIDED

<p>CODE. D601003ZC Calibrating pins</p> 	<p>CODE. D307160ZZ Hooked spanner</p> 
<p>Tracers and cutters</p> <p>CODE. D601162ZC T20-F20                  CODE. D601163ZC T25-F25                  CODE. D601164ZC T30-F30</p> 	<p>CODE. D300308ZZ Wrench 0.393"</p> 
<p>CODE. D601002ZC Pair of steel tip stops</p> 	<p>CODE. D601161ZC Set of allen keys (6 pcs)</p> 
<p>CODE. D601068ZC Keso 5° side adaptors</p> 	<p>CODE. D300783ZZ Wrench 0.748"</p> 

## Installation.

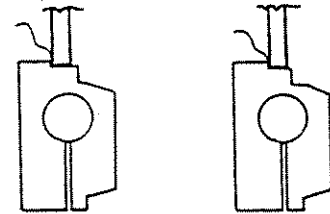
The machine is set and tested before leaving the Silca workshops. However, before operating for the first time, it is advisable to carry out the following checks.

- Place the machine on a bench, where it can be easily operated.
- Ensure that the mains voltage is compatible with that of the motor.
- Ensure that the machine is properly earthed. If not from the plug, then with the brass earthing screw at the rear of the machine.
- Make sure that the machine is free of all packing materials.
- Loosen the lock screw (S) for angular jaw movement and rotate the jaws in both directions. When passing the '0' position on the drum, the ball joint should 'click' at this "self-centre" position. At this point the jaws will be completely horizontal.

To check the calibration (as and when necessary).

Insert the two testing pins (code D601003ZC) in place of tracer point and cutter. To lock the cutter side pin in place, hold the cutter chuck (J) with the wrench (code D300308ZZ) and turn the locking nut (K) which is at the top of the spindle shaft. The pin is fixed in place in the tracer point holder (N3) by tightening the locking screw on the side (L).

With the jaws in the '0' position -and opened- ensure that both pins touch the inside faces of the inner jaws. To carry out this procedure correctly, it is necessary to hold a very thin piece of paper (with a thickness of less than 0.001", cigarette paper is practical and ideal to use) between the pin and inside jaw face. The paper should stick when slight pressure is applied to the pin against the jaw. This test must of course be carried



out on both the jaws. If they do not, loosen the two screws (K2) and turn the spindle (K3) -which is internally eccentric- until the pins are aligned. If however, the spindle will not move when these screws are loosened, the central grub screw (K1) can be used to slightly prise open the carriage, thus allowing the spindle to turn. Remember to unscrew this and retighten the outer screws after alligning the pins.

Repeat this operation on the front part of the jaws. If contact is not made in both cases, then use the hooked spanner (code D307160ZZ) provided to loosen the ring nut (N2) and move the tracer point holder (N3) either back or forward as necessary, using the two allen screws at the front and rear (N1). The tracer point is then fixed into place by retightening the ring nut (N2).

NB. These calibrations for setting the machine are extremely delicate; unless carried out carefully, correct key-cutting will not be possible.

## To set the cutting depth.

Insert the cutter to the full depth into the cutter shaft (J). Secure by turning the locking nut (K) while at the same time holding the chuck from turning with the wrench (code D300308ZZ) provided. Insert the tracer point into the support, tighten the screw (L) slightly, enabling the tracer point to slide freely in the housing. Position the tracer point lower than the cutter.

Open the jaws by loosening the handles (R); insert two identical keyblanks. Ensuring that they are correctly positioned, tighten securely. Using the upper carriage lever (I) lower until the tracer point rests lightly on the blank. Apply slightly more pressure, giving further movement, causing the tracer point to retract into the holder; the cutter will lower to the point of touching the blank. At this position the tracer

Turn on the motor (E) and check that when the tracer point touches the left-hand key, the cutter should just skim the right-hand key to leave a slight groove. If this groove appears too deep, loosen the adjustment screw nut (N), turn the adjustment screw (M) clockwise. This will lower the tracer point (fig.3c) (note that the spring loaded release nut (O) must be unscrewed to free the adjusting screw (M)(fig.3a)), lifting the the cutter from the key. However, if no contact is made between the cutter and the key, anti-clockwise turning of the screw (M) will adjust correctly (fig.3b). When the cutting depth is perfect, tighten the locking nut (N). Loosening the spring loaded nut still further will allow the tracer point to locate onto the left-hand keyblank before the cutter comes into contact with the right-hand keyblank.

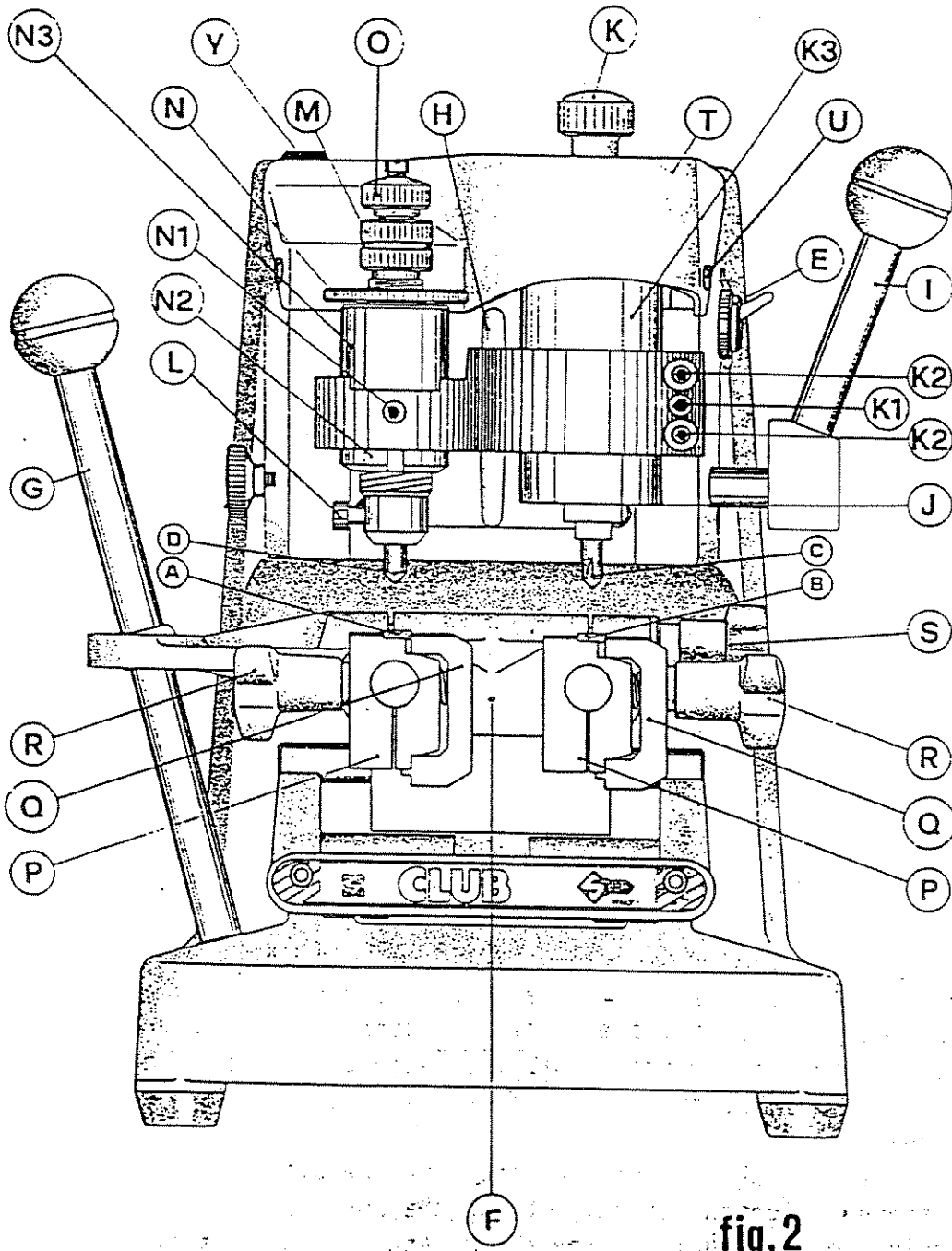


fig. 2

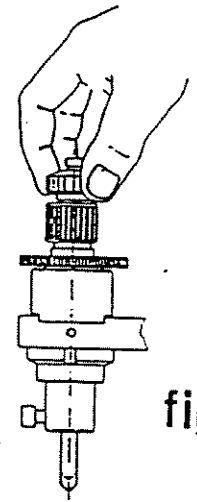


fig. 3a

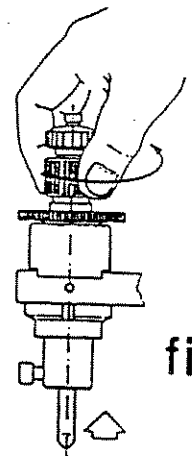


fig. 3b

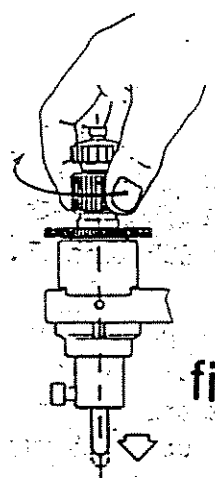


fig. 3c

When the depth setting has been satisfactorily made, to operate the machine:

- 1) Switch on the motor (E).
- 2) Grip the vertical lever (I) with the right hand and move the vertical carriage (H) towards the jaws (F).
- 3) With the left hand on the lower carriage lever (G), move the spring loaded tracer point (D) into the notches or grooves of the original key (A), taking care to exert sufficient pressure on the lever (I) to bring the cutter down fully onto the keyblank (B). Trace all the necessary movements with the lower carriage lever (G) to give precision copying of all the cuts in the original key.
- 4) To cut the opposite side of the key, simply loosen the jaw handles (R) and turn both keys over. ( For reversible keys with both sides identical it is only necessary to turn the keyblank ).

IMPORTANT.. To replace the cutter:

Return the lower carriage back towards the machine. Holding the cutter chuck (J)(fig.4) with the wrench (code D300308ZZ), unscrew the locking nut (K) approximately two turns. With one hand holding the cutter (C) from falling, strike the nut (K) with the palm of the free hand.

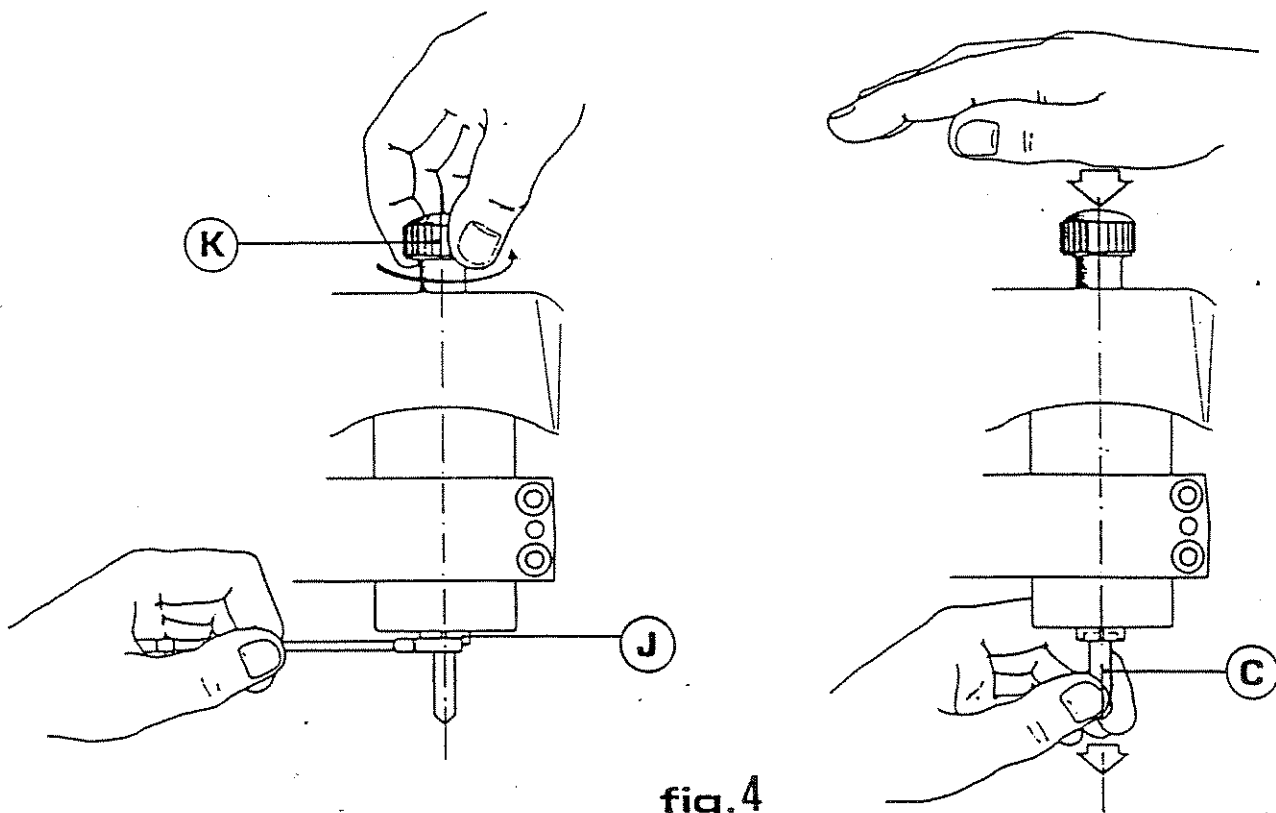
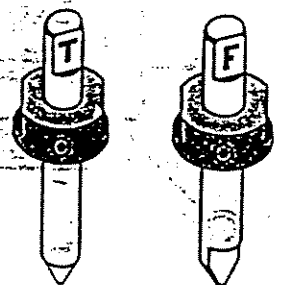


fig.4

It is suggestable to obtain the "Stop rings" (code D704795ZB-1 pair) for mounting on the tracer point and cutter, allowing them to be removed and replaced without checking the depth setting every time.





## JAW REVERSING INSTRUCTIONS

To give a secure grip on Z-profile Mercedes keys.

- 1) Unscrew the handles (R) to allow free movement of the moveable jaws (Q).
- 2) Turn the jaws, as detailed in the figures from 1 to 2 - illustrated below.
- 3) To reset the jaws to the original position, reverse this procedure (i.e. from 2 to 1).

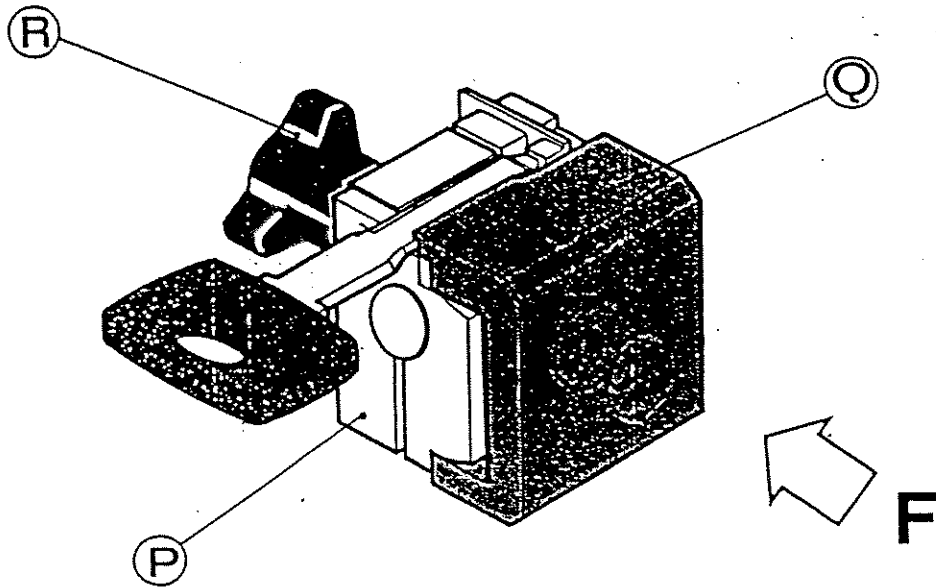


fig.5

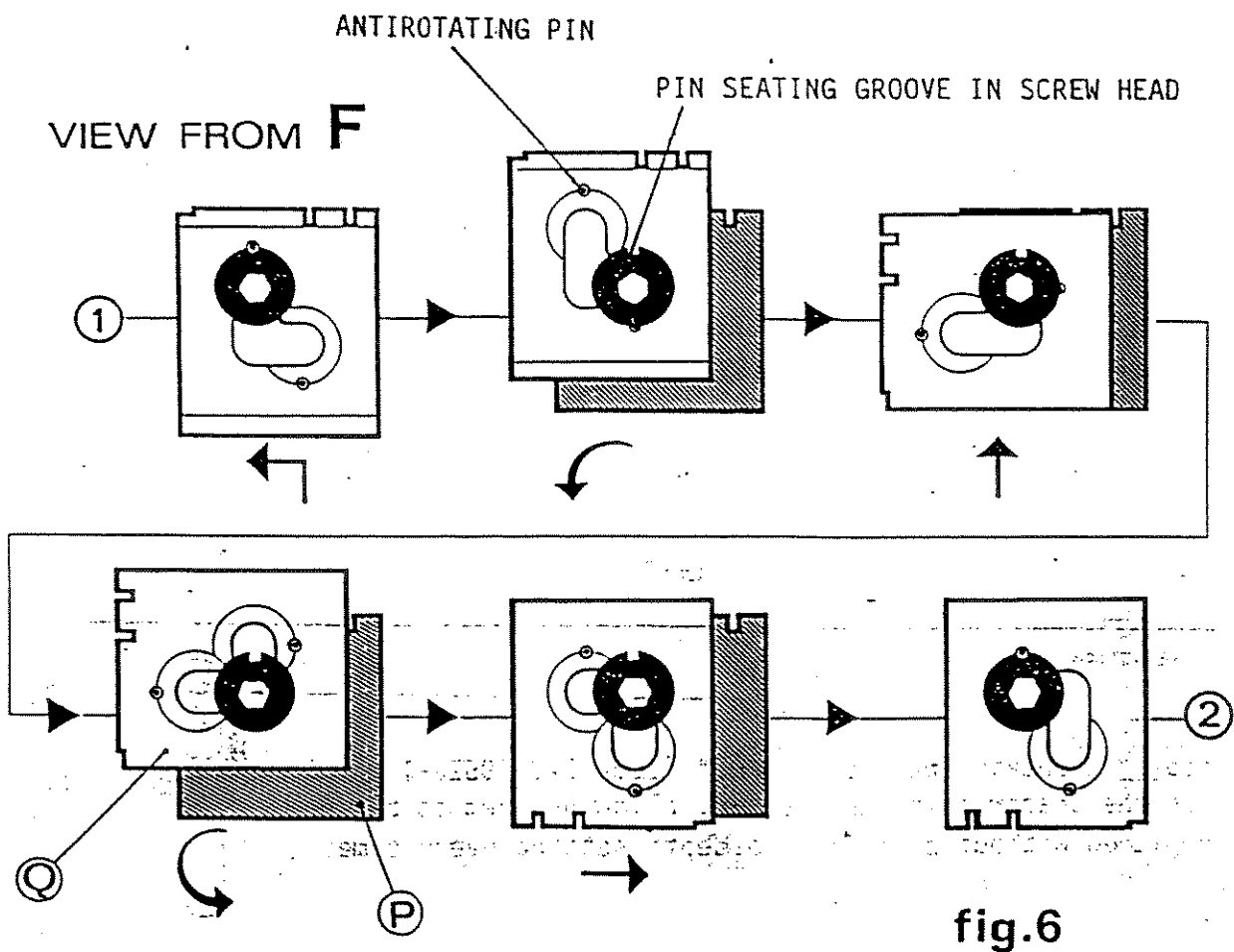


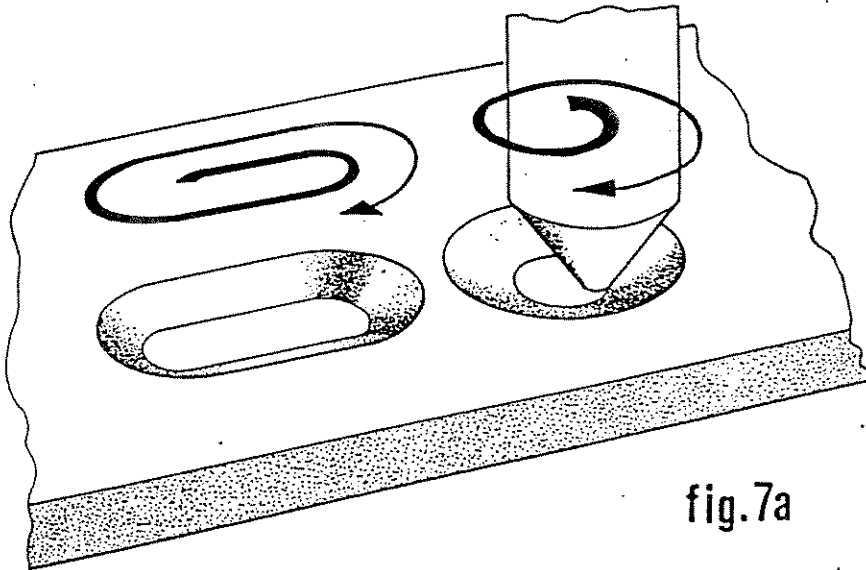
fig.6

## CUTTING OF DIMPLE KEYS

Place the key to be copied in the left-hand jaw, with the shoulder resting against the jaw face. However, if the original key has no shoulder, the key should be inserted using the tip stop (code D601002ZC).

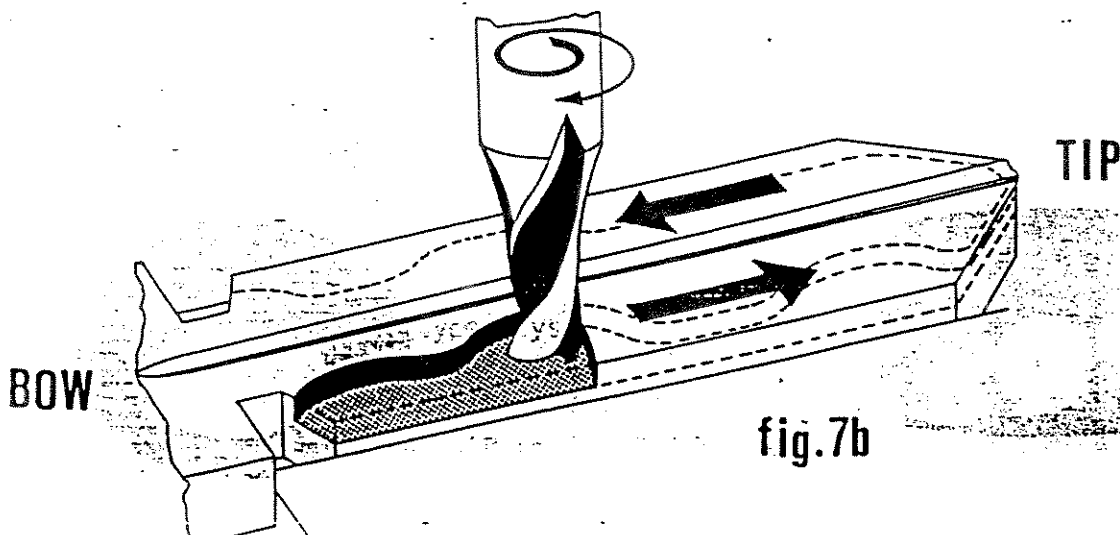
The keyblank is inserted into the right-hand jaw in a similar manner. After setting the cutting depth (previously described), switch on the motor.

Using the spring loading to give 'play' to the tracer point, lower using the vertical lever (I). When the cutter has followed the tracer point into the cut move the lower carriage with lever (G) to track the outline of the cut as shown in fig.7. Continue in this way until the key is fully cut.



## CUTTING OF MILLED KEYS

Whilst cutting these types of keys, it is necessary to cut in a bow to tip direction on the right-hand side of the blank, and from tip to bow when cutting on the left-hand side. This process is shown in the diagram (fig.7A) below.



# EXAMPLES OF CUTTING

DIMPLE

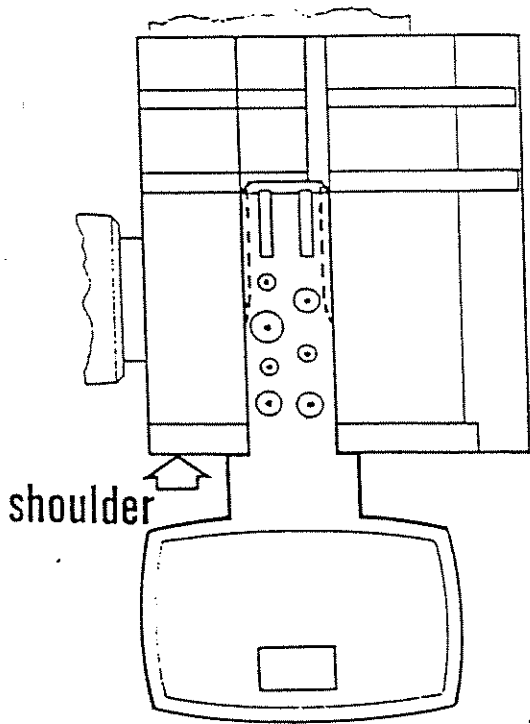


fig. 8

SLOT DIMPLE

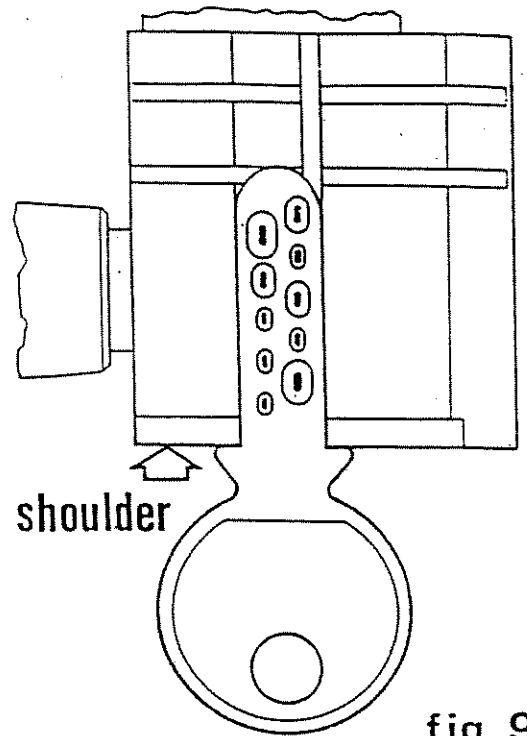
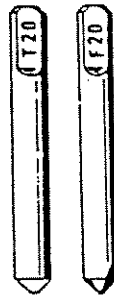


fig. 9



DOUBLE SIDED MILLING

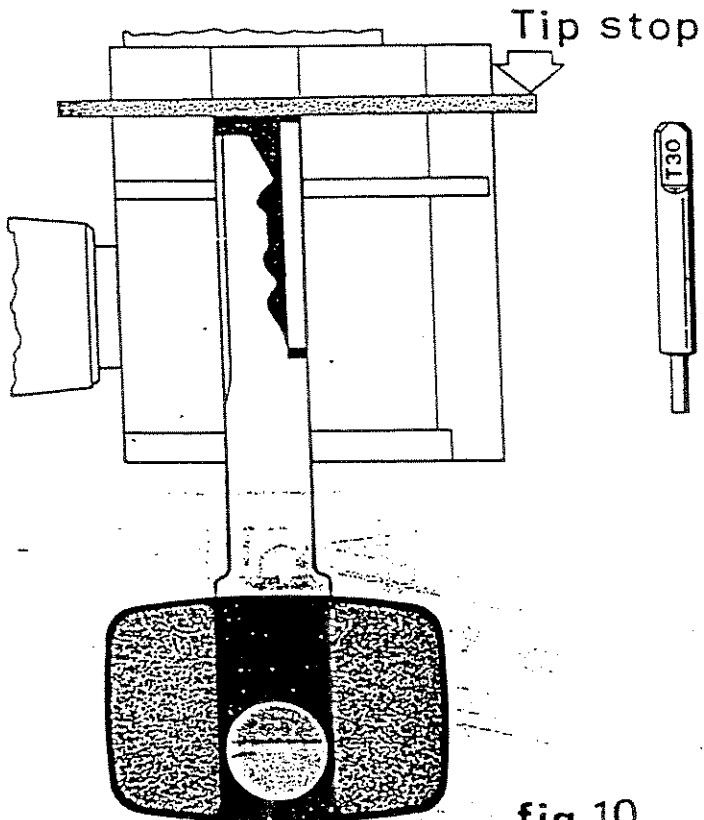
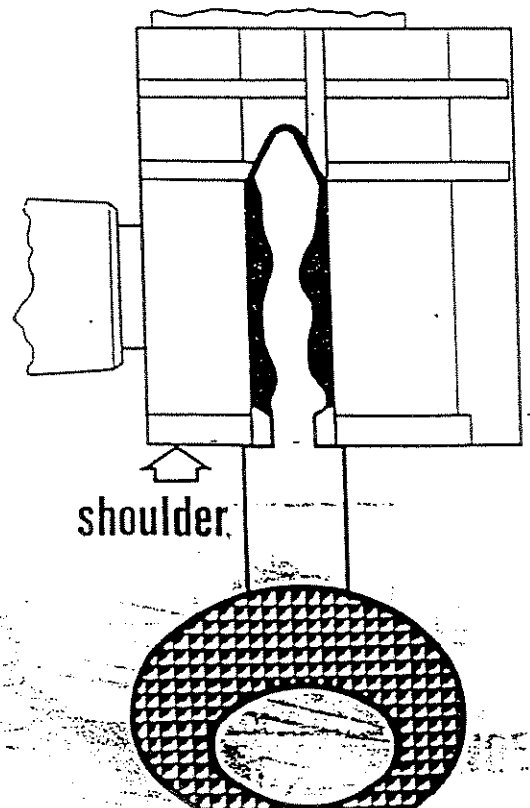


fig 10

FOUR SIDED MILLING



## THE CUTTING OF KEYS WITH INCLINED CUTS, AND QUADRANGULAR SHAPED KEYS

Insert both keys into the jaws as previously described. Loosen the locking screw (S) to give angular movement. Rotate the jaws to the required angle by using the dial on the left-hand side, then tighten the locking screw (S).

Following the previous procedure cut the key on both sides, changing the angle of the cut whenever necessary.

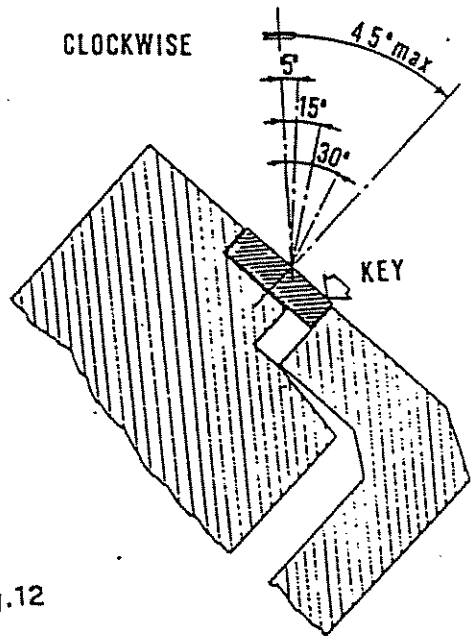


fig.12

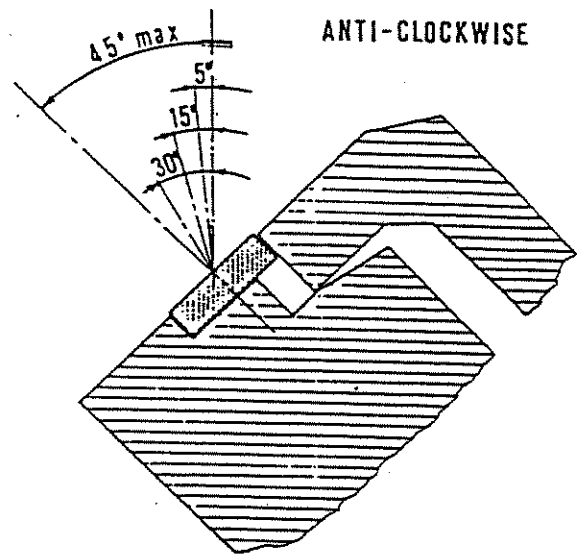


fig.13

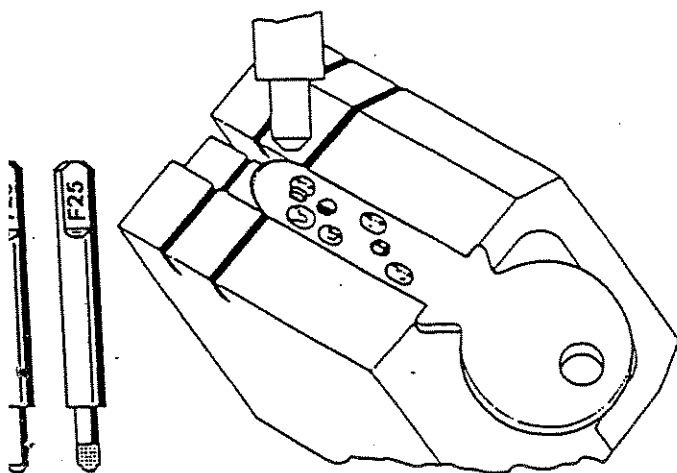


fig.14

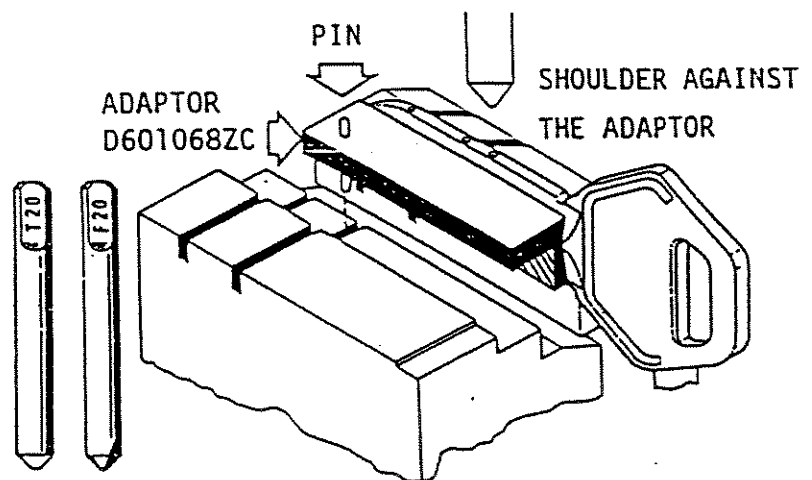
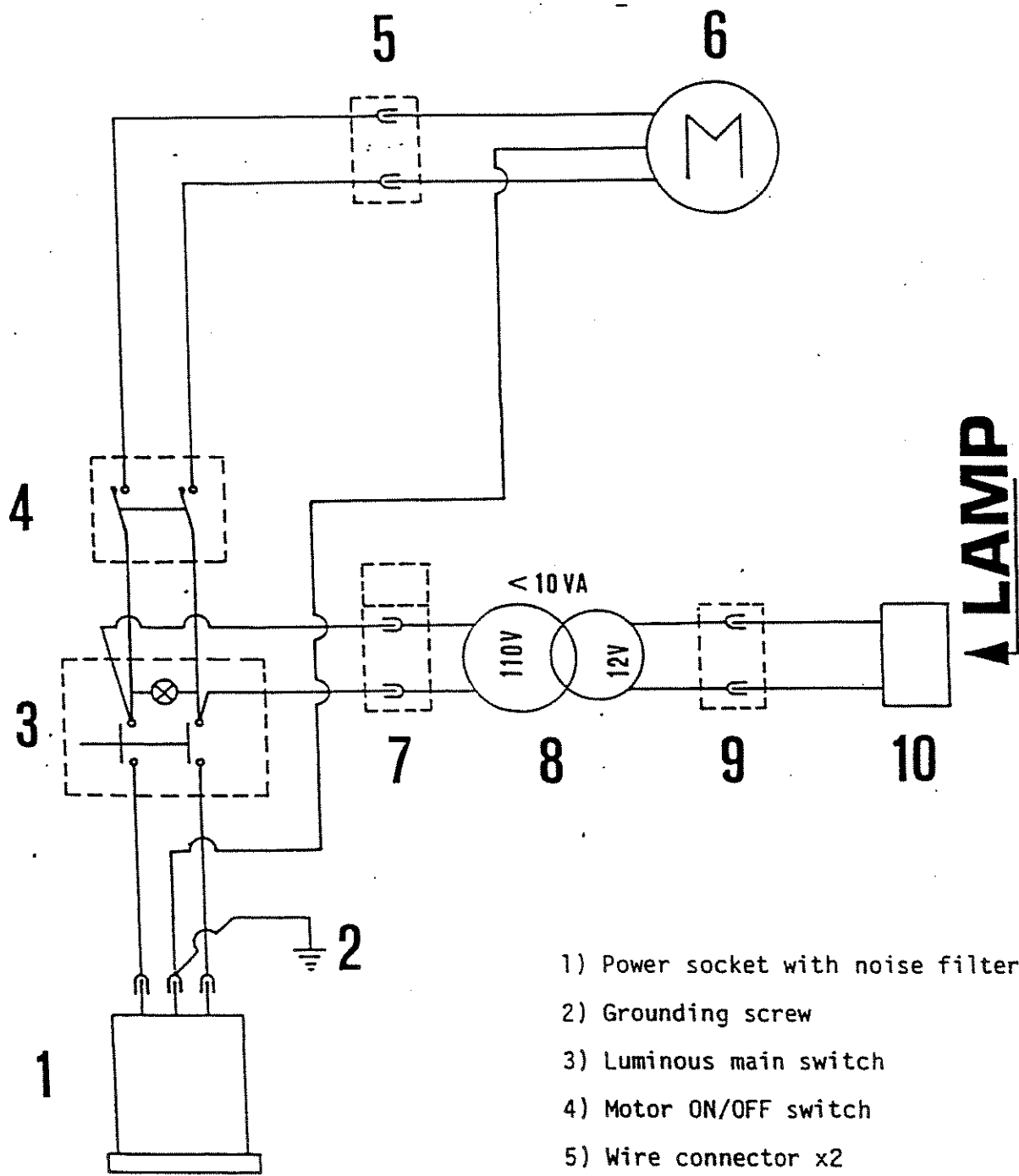


fig.15

Adaptors for cutting quadrangular type keys.

Place the adaptor into the jaw with the pin in the groove. Insert the key with the shoulder against the side of the adaptor and tighten the jaws. The cuts on the first side can now be made as before. For the second side simply loosen the jaws and turn the key to be cut over.

ELECTRICAL DIAGRAM



- 1) Power socket with noise filter
- 2) Grounding screw
- 3) Luminous main switch
- 4) Motor ON/OFF switch
- 5) Wire connector x2
- 6) Motor
- 7) Wire connector x3
- 8) Transformer
- 9) Wire connector x2
- 10) Lamp socket

### MAINTENANCE

Special maintenance is not necessary, however it is advisable to clean the machine regularly. (IMPORTANT - do NOT clean with compressed air). The vertical slide above the carriage should be kept lightly oiled. (This is accessible by removing the protective casing). Lubrication of the lateral movement carriage rod (which carries the bushes) is also recommended.

### GUARANTEE

The machine is guaranteed under the terms of the warranty as detailed. No claims will be recognised if the machine has been subjected to mishandling or if the machine is not properly electrically earthed.

The manufacturer reserves the right to alter specifications and prices without prior notice.