

RANSOMES

16 inch (40 cm)

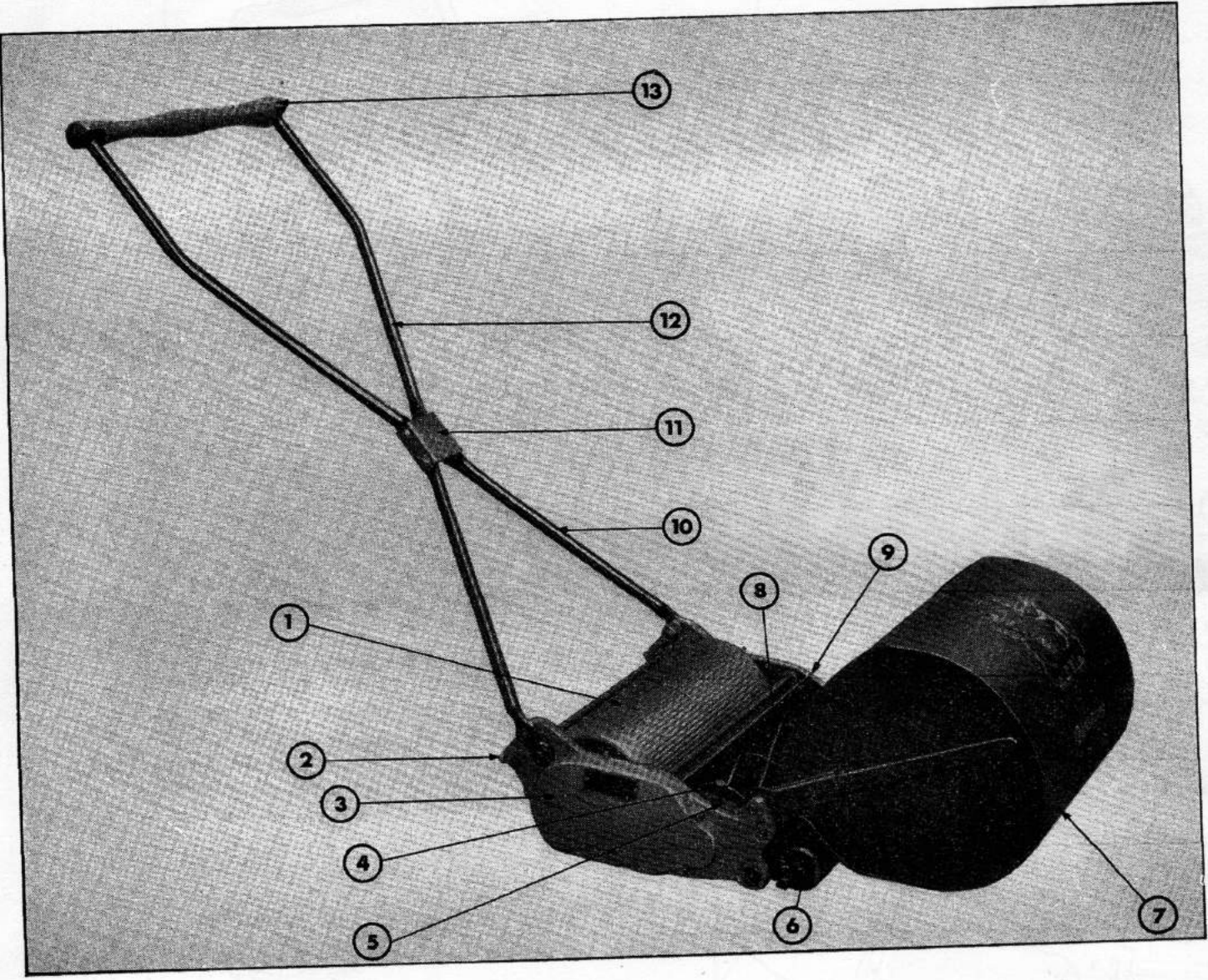
CERTES LAWN MOWER

Mark 12

OPERATOR'S INSTRUCTIONS

You have bought a first class lawn mower, but the useful life and amount of good service you obtain from your machine depends on the way it is used and maintained. Please read this instruction book carefully and make yourself thoroughly familiar with the operating and maintenance points.

THIS IS YOUR MOWER . . .



1. Landrolls.

2. Handle adjusting screws.

3. Gear cover.

4. Adjusting screws—Cutting Cylinder.

5. Cylinder Caps.

6. Front Roll.

7. Grassbox.

8. Cutting Cylinder.

9. Concave.

10. Handle Tube, bottom

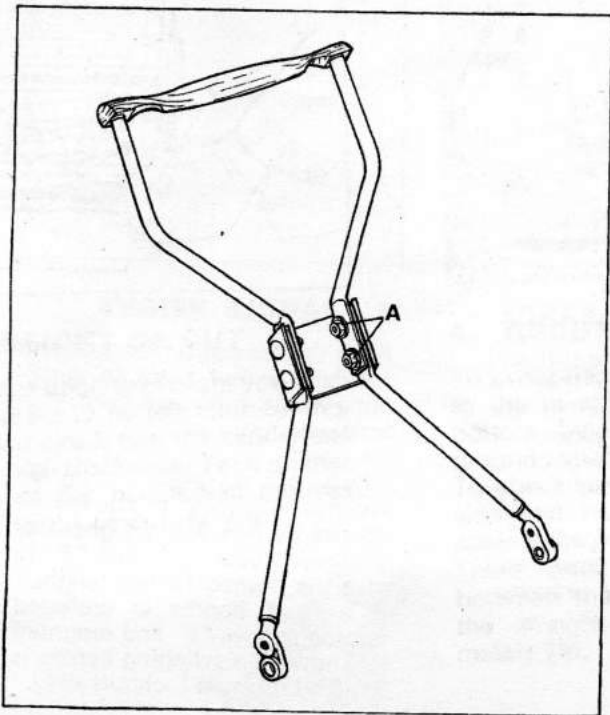
11. Handle Clamp.

12. Handle Tube, top.

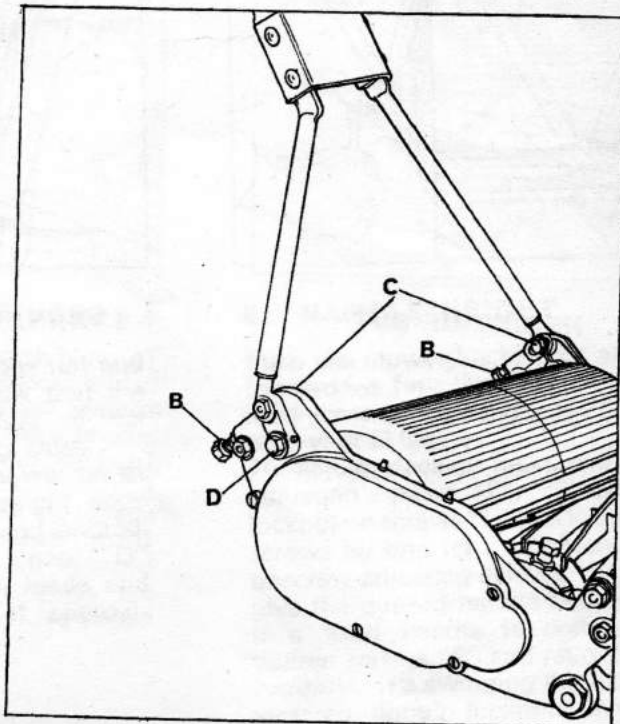
13. Handle Crossbar

ASSEMBLING THE MOWER

For convenience of packing the "Certes" is despatched partially dismantled. Before disposing of the packing make sure you have the following items: four handle tubes, the centre clamp, the handle crossbar, tool kit and instruction book.



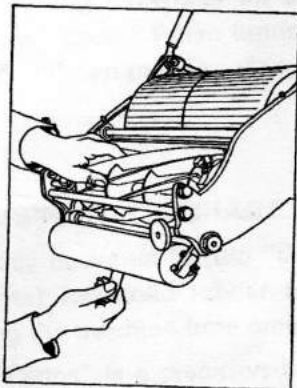
First assemble the handle tubes and crossbar as illustrated above. Note that the bottom handle tubes are fitted outside the top tubes, i.e. next to the clamp. Bolt up with the cup head bolts, nuts and washers ("A" above) supplied. Two $\frac{3}{8}$ in. bolts and washers are also included for the crossbar. Fit the washers under the heads of the bolts. Now slacken the adjustable stop "B" (one in each sideframe) and bolt the handles to the side frames as shown.



Note that a washer is fitted under the head of bolt "D" and that the top bolts "C" are screwed in from the inside and locked on the outside of the handle lug with a locknut. If the handles are to be used fixed all bolts should be pulled up tight. If used in the floating position bolts "C" should be slackened back a turn or two and locked with the nut. In the floating position the stop screws "B" should be adjusted so that the front roller can be tipped clear of the ground for turning.

INITIAL ADJUSTMENTS TO A NEW MOWER

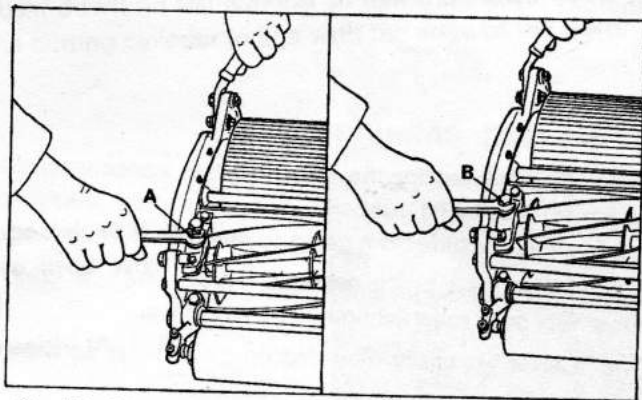
Before attempting to operate a new mower, check the following points and make any adjustments that may be necessary to suit your personal requirements.



1. CHECK CUTTING ACTION

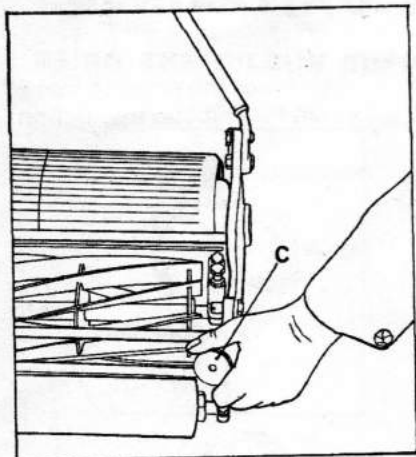
Insert a thin piece of paper between the bottom blade and the spiral cutters.

Rotate the cylinder by hand. The paper should be cut cleanly at any point along the edge of the bottom blade.



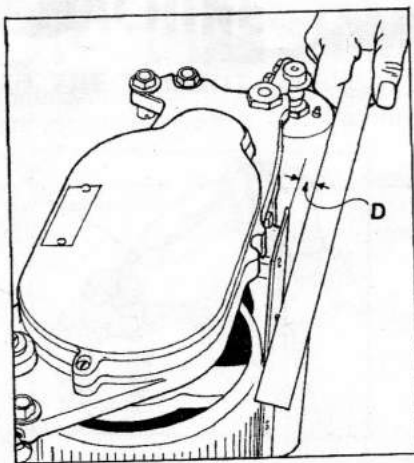
2. IF ADJUSTMENT IS NECESSARY

Slacken locknuts "A" on either side of the machine. To bring the spiral cutters closer to the bottom blade turn screws "B" in a clockwise direction. Make an eighth of a turn to each screw alternately. Do not over-tighten—a sliding contact between the cutting edges is all that is required. Re-tighten locknuts "A" securely.



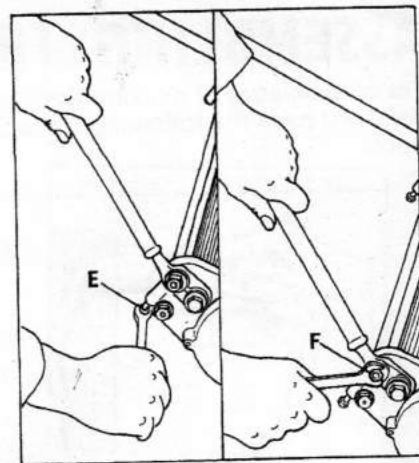
3. HEIGHT OF CUT

Decide upon the height you wish the grass to be left after cutting. To cut closer turn the handwheel "C" anti-clockwise. Each quarter turn of the handwheel reduces the height of cut by $\frac{1}{4}$ in.



4. GROUND CLEARANCE

To avoid damage to the turf and to the machine, check that the bottom blade is clear of the ground when cutting close. To check turn the mower on its side and hold a straight edge against the front roll and landroll. There must be a gap "D" between the bottom blade and the straight edge of approximately $\frac{1}{8}$ in.



5. HANDLE HEIGHT

Push the mower backwards and forwards a few times to determine whether the handle position is to your liking. To adjust slacken locknut and adjusting screws "E". Slacken locknut on screws "F" and loosen screws by one turn. Tighten or unscrew adjusting screws "E" to give the desired handle height. If a fixed handle is preferred tighten screws "F" and retighten locknuts. If a swinging handle is required, tighten locknuts only.

OPERATING THE MOWER

If you have a newly-laid lawn, the mower should be set high for topping until the sward is well established. A lawn looks neater mown in parallel strips. It is best to alternate the direction of cut. For example, the lawn can be cut lengthwise on one occasion and crosswise or diagonally on the next. Never "shave" the surface; this practice harms the grass and leads to moss invasion.

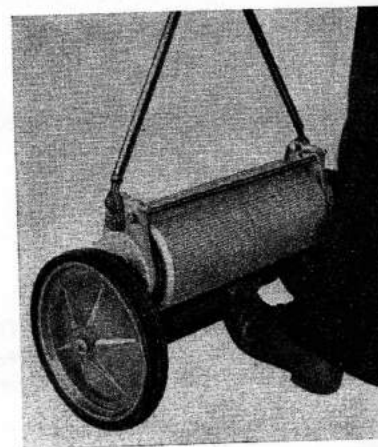
When cutting remember an even walking pace will produce the best results. Avoid adopting an intermittent "see-saw" pace. When turning at the end of each cut, bear down on the handles so that the mower turns on the landroll. When mowing along edges, keep one end of the cutting cylinder in line with the edge of the lawn.

TRANSPORT CARRIAGE

Specially designed for the "Certes", this transport carriage (illustrated opposite) has solid rubber tyres and should always be used when moving the machine from green to green or lawn to lawn.

The "Certes" is a precision-built mower and it is inadvisable for it to run on its own roller when not on the grass.

The "Certes" is easily mounted on its carriage as shown.



LUBRICATING THE MACHINE

USING THE OILGUN SUPPLIED IN THE TOOLKIT

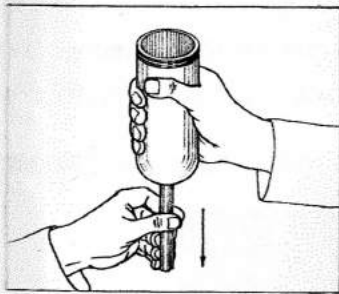


Fig. 1

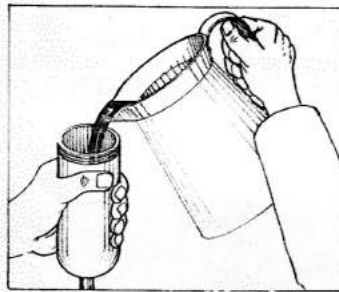


Fig. 2

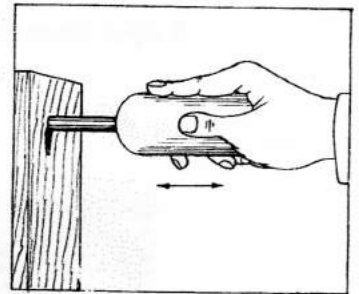


Fig. 3

Unscrew the filler cap and pull nozzle downwards to its fullest extent (Fig. 1).

Fill gun with one of the commercial brands of S.A.E. 30 oil obtainable from any garage (Fig. 2).

Replace filler cap and press nozzle once or twice against a piece of wood to remove air bubbles (Fig. 3).

Apply nozzle to lubrication nipple and make sure it is reasonably square with the end of the nipple and press firmly on the body of the gun two or three times.

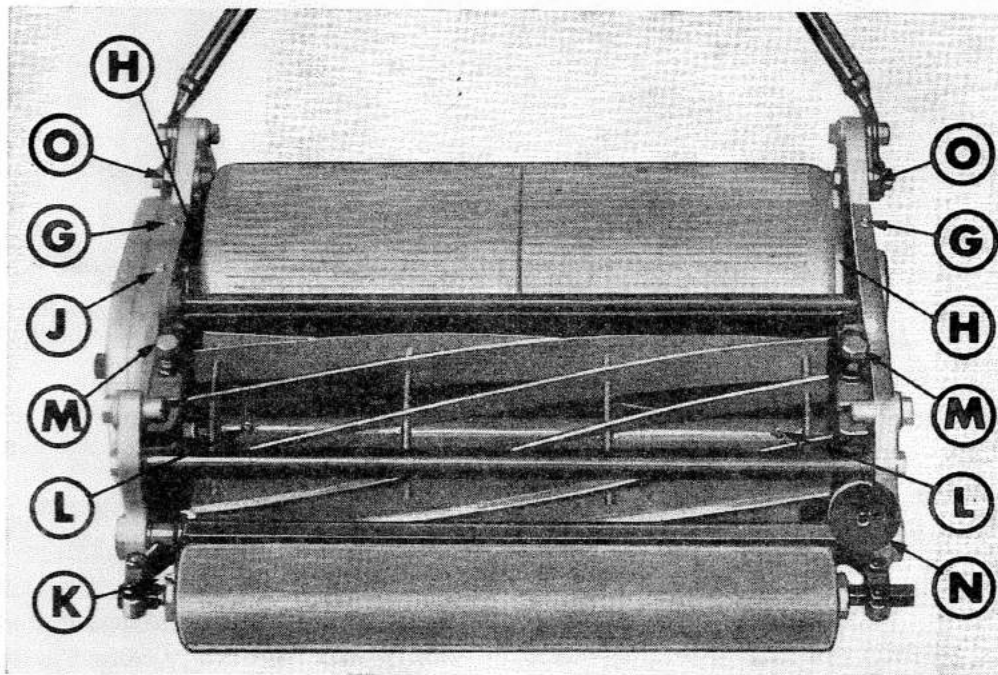


Fig. 4

LUBRICATION POINTS

There are eight points on the "Certes" which need lubrication every eight working hours (see Fig. 4), using an S.A.E. 30 oil.

1. Landroll bearings through nipples "G".
2. Landroll freewheel through nipples "H".
3. Gearing through nipple "J".
4. Front roll oilbath through nipple "K".
5. Cutting cylinder spindle through nipples "L".

A little oil should be applied occasionally to the adjusting screws "M", Handwheel "N" and fulcrum pins "O".

MOWER MAINTENANCE

To keep your mower in peak cutting condition it should always be well cleaned after use.

Smear a little grease over all cutting edges and store the machine in a dry place.

Attend regularly to the lubrication instructions on page 5 and cutting unit adjustment as on page 3.

Make occasional checks to ensure that all nuts and bolts are securely tightened.

GRINDING-IN CUTTING CYLINDER

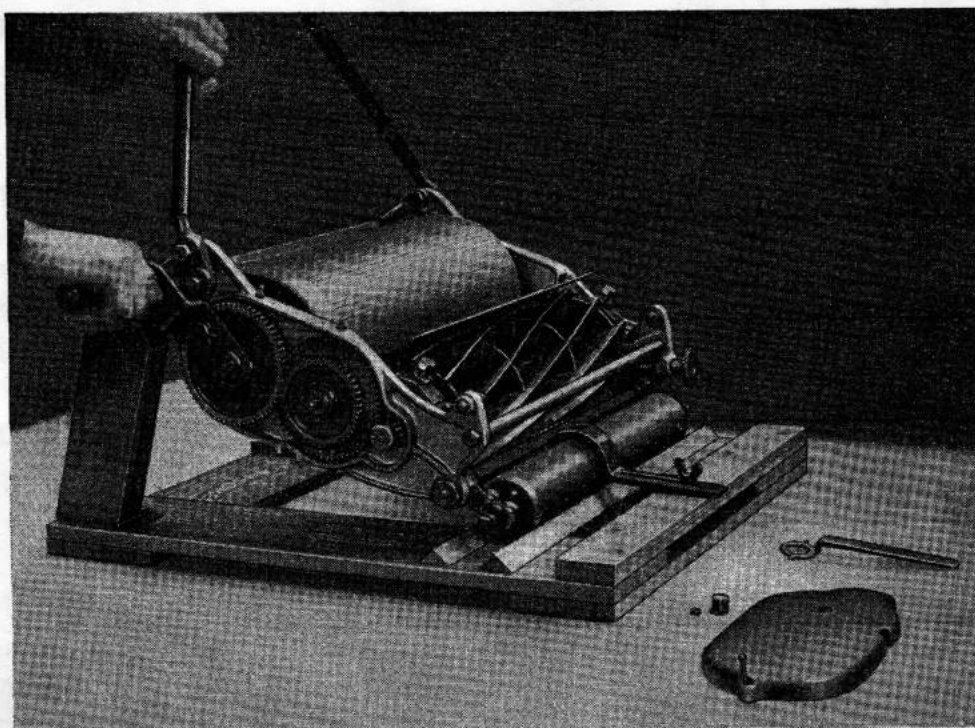


Fig. 5
Grinding-in Rest

To maintain keen cutting edges on which clean cutting depends, we recommend a periodic grinding-in with carborundum paste. We can supply, at an extra charge, a special stand for this operation, which enables it to be carried out simply and effectively, and in a matter of a few minutes.

Place the machine in the stand as shown in Fig. 5 above, clamping securely the front roll. Remove the gear cover and attach the special handle to the main gear wheel. (The handle illustrated is only supplied with the grinding-in frame.) Now apply carborundum paste in small quantities with a brush to the edges of all the spiral cutters and turn the handle in an anti-clockwise direction so that the cylinder revolves backwards. As the grinding process continues the cylinder should be adjusted to the bottom blade by screws "M" (Fig. 4, page 5). A light pressure on the bottom blade is all that is necessary, and this will allow the carborundum paste to get to the edges. Examine the edges of the cutters to make sure that grinding is taking place through their entire length and that they have become sharp.

When grinding is complete make sure that all traces of the abrasive is wiped off the cutters and bottom blade. Use an oily rag to do this.

MOWER MAINTENANCE

FRONT ROLL BEARINGS

The front roll turns on adjustable hollow centres and should rotate perfectly freely without float. To take up any play, slacken the nut "P" (Fig. 6) (R.H. side of machine) and turn cone "R" as required. Tighten nut "P" which will lock the adjustment.

REMOVING AND REPLACING FRONT ROLL

Slacken nuts "P" (Fig. 6) on the left-hand front roll carriage. Remove nuts "P" from the right-hand carriage and withdraw the U-bolt "Q". The front roll, complete with spindle, can now be withdrawn. When replacing take care that the front roll is fitted with the lubricating nipple end towards the right-hand side of the machine and that the adjusting cone "R" is also to the right-hand side. If this is not done the balance of the machine will be affected.

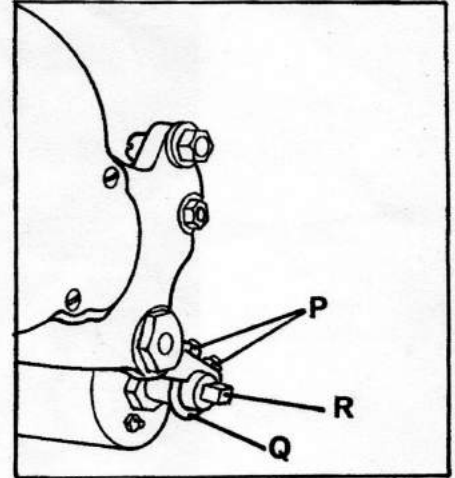


Fig. 6

ALIGNING THE FRONT ROLL

Should the front roll get out of alignment with the bottom blade, tilt the mower on its side as shown for checking ground clearance on page 4.

Slacken bolt "S" (Fig. 7) and move the left hand end of the roll up or down as required. Check with a straight edge the distance from the bottom blade, as for height of cut, making this check at either end of the landroll and front roll. When both these distances are identical the front roll will be square with the bottom blade.

Re-tighten bolt "S" securely.

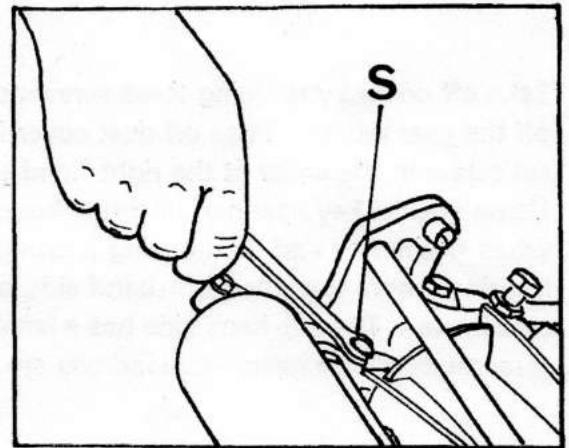


Fig. 7

DISMANTLING FOR SERVICE REPAIRS

TO TAKE CUTTING CYLINDER OUT OF MACHINE

Remove the gear cover (item 3, page 2), take off the hexagon nut and remove pinion from cylinder spindle. Undo the two nuts at each end of the cylinder caps and remove them. Lift up L.H. end of cylinder as shown in Fig. 8 (overleaf), and the spindle end can be withdrawn through the slot in the side frame "V".

TO REPLACE CUTTING CYLINDER

Insert the spindle end into the slot in side frame. Press the bearing housings, slightly on the cross, into the slide ways, keeping the R.H. housing at the top of the slot. Do not exert too much pressure to get the cylinder back; it will slide into position quite easily, and the housings will gradually assume their correct angle as the cylinder takes up a horizontal position. Replace the cylinder caps and then turn the mower over and insert the springs under the housings. Place the springs against the lugs on the side frames and, with a suitable screwdriver lever the ends into the correct position taking care to see that the springs are set squarely between lug and housing. Replace cylinder pinion and tighten nut, not forgetting the distance piece that should be fitted between ball bearing and pinion.