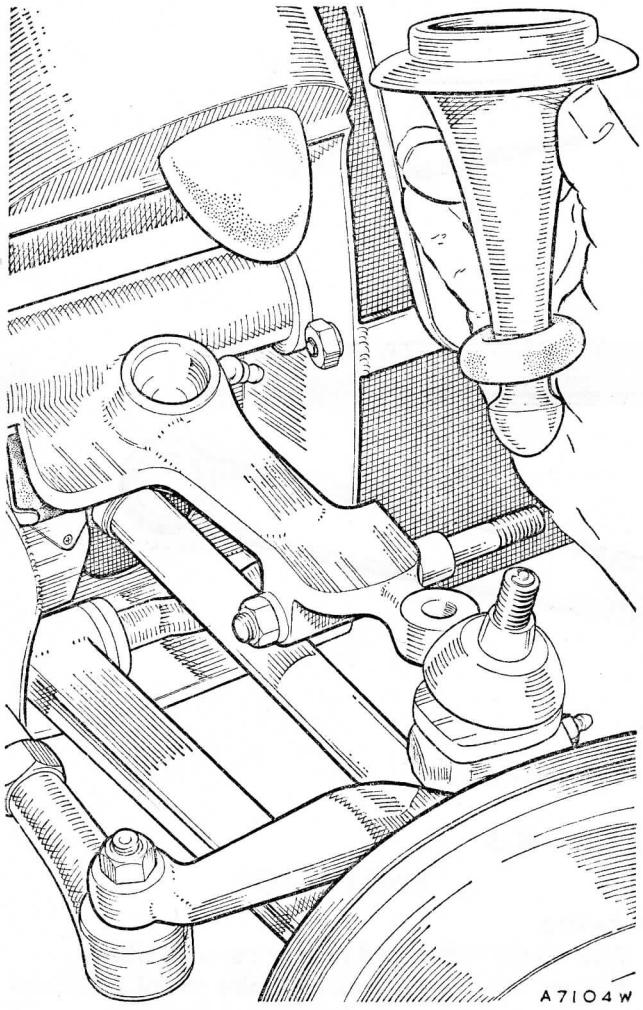

Fig. K.4

The method of removing the spring strut with the spring unit compressed and the upper support arm removed from the hub ball pin

The hub bore is machined to form a register between the two bearings; removal must therefore be from their respective sides of the hub bore.

Reassembling

Reassembly is a reversal of the removal procedure, with particular attention given to the following points.

Pack the bearings with grease to Ref. C and make certain that they are fitted with their outer races hard against their register in the swivel hub bore.

When fitting the grease-retaining seals, the outer bearing spacer, and the driving flange washer make certain that they are fitted the right way round; the outer bearing spacer must have the chamfered bore facing outwards and the driving flange washer inwards.

Refitting

Refitting is a reversal of the removal procedure.

When refitting the lower arm follow the procedure given in Section K.6.

Tighten the steering lever ball joint to the torque figure given in **'GENERAL DATA'.**

Bleed the hydraulic system when the operations are completed.

Section K.4

SWIVEL HUB BALL JOINTS

Removing

Compress the spring unit as in Section K.2 or depressurize the Hydrolastic system as Section H.8.

Jack up the car and place supports under the front sub-frame side-member. Remove the road wheel and release the tie-rod from the lower arm.

Remove the upper suspension arm retaining nut and spring washer and release the arm from the pin using Service tool 18G 1063. Take off the ball housing dust seal, remove the lubricator, and knock up the tab of the locking washer; unscrew the housing to release the ball and ball seat. The same procedure is used to remove the lower ball joint. Note the spring fitted under the lower ball joint seat.

Refitting

Thoroughly clean all components and refit the ball seat, pin, and ball housing without the packing shims, locking washer, or lower ball joint seat spring. Screw down the ball housing until there is no free movement between the ball and the ball seating, and measure with a feeler gauge the gap between the housing and the swivel hub. Remove the housing and ball pin (refit the spring under the lower joint ball seat), and repack the assembly with grease to Ref. C. Add shims to the value of the feeler gauge measurement less the thickness of the locking washer, ·036 in. (·91 mm.).

The final assembly must have a condition of 'no nip' to ·003 in. (·076 mm.) end float and a further shim must be added to the initial feeler gauge measurement to produce this condition. Replace the locking washer and refit the assembly to the swivel hub. Should there be evidence of excessive end float or tightness the housing shims must be adjusted accordingly.

Use Service tool 18G 372 with adaptor 18G 587 to tighten the ball pin retainer to the correct torque figure (see **'GENERAL DATA'**). Tap up the locking washer on three flats, with one flat adjacent to the brake disc (on Cooper models) to secure the housing.

Replace the dust seal, refit the suspension arm and tighten the ball pin nut to the correct torque figure (see **'GENERAL DATA'**).

Reconnect the tie-rod yoke to the lower arm.

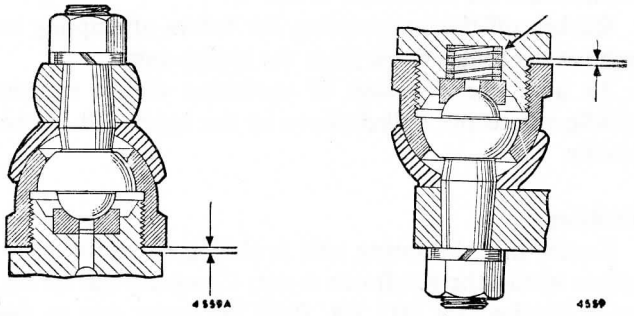

Fig. K.5

A section through the swivel hub ball joints. Take feeler gauge measurements at the positions indicated without the locking washers fitted and without the seat spring fitted to the lower ball joint