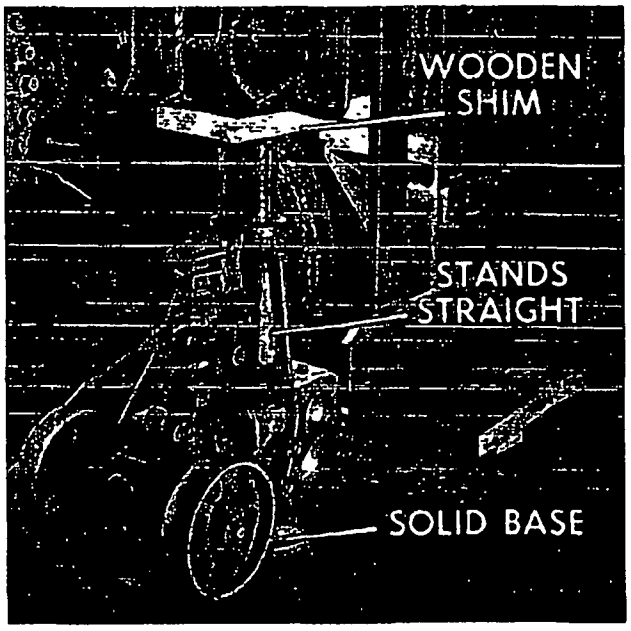

Fig 17-7. Three elements that help make the operation of a pneumatic jack safe are pointed out here

The workmen should see that jacks are well lubricated, but only at points where lubrication is specified, and should inspect them for broken teeth or faulty holding fixtures. A jack should never be thrown or dropped upon the floor, such treatment may crack or distort the metal, thus causing the jack to break when a load is lifted

It is important that the floor or ground surface upon which the jack is placed be level and clean, and that the safe limit of floor loading is not exceeded If the surface is earth, the jack base should be set on heavy wood blocking, preferably hardwood, of sufficient size that the blocking will not turn over, shift, or sink If the surface is not perfectly level, the jack may be set on blocking, which should be leveled by substantial shims or wedges securely placed so that they cannot be crushed or forced out of place

To prevent the load from slipping, no metal-to-metal contact should be permitted between the jack head and the load A wood shim, preferably hardwood and longer and wider than the face of the jack head, should be placed between the jack head and the meeting surface of the load One-inch wood stock is suitable for this purpose (Fig 17-7)

"Extenders" of wood or metal, intended to provide a higher rise where a jack cannot reach up to the load nor lift it high enough, should never be used Instead, a larger jack should be obtained or higher blocking—which is correspondingly wider and longer—should be placed under the jack

All lifts should be vertical with the jack correctly centered for the lift, the base on a perfectly level surface, and the head with its shim bearing against a perfectly level meeting surface When an emergency requires that the lifting force be applied at an angle, extra precautions must be taken which include

1. A base of blocking securely fastened together and to the ground to make an immovable surface at right angles to the lift for the jack base to rest on