

THE  
**A.J.S.**  
Interchangeable  
DETACHABLE  
MOTORCYCLE  
WHEEL

PATENT No. 330/14



Sole Manufacturers:

**A. J. STEVENS & CO. (1914) LTD.,**  
**WOLVERHAMPTON, England.**

Registered Office : Graiseley House.

Works : Graiseley Hill.

TELEGRAMS:

TELEPHONE:

CODES:

"Hopit, Wolverhampton." 1731, Wolverhampton.

A.B.C. 5th Edn.

(Five Lines)

Marconi, International.





## Quick-Detachable Interchangeable Wheel

Patent No. 330/14.

**S**IMPLICITY is the keynote of the A.J.S. Detachable and Interchangeable Wheel System, added to which it is the only Perfect Detachable Wheel on the market.

This statement will be readily appreciated after a perusal of the constructional features, from which it will be seen that it embodies every desideratum that practical experience has proved necessary.

Described from the right-hand side of the Motorcycle it consists of :—

- (a) Six permanent Driving Studs on Sprocket—three of which are short and plain, acting as dummy Drivers, and the other three longer and Threaded.
- (b) Six holes in each Hub-Flange corresponding in position with the six Studs on Sprocket.
- (c) Wheel being placed on Studs, and the faces of far Hub-Flange and Sprocket being accurately machined, the two fit together perfectly firm and true. Three of the six holes fit the Plain Studs ending flush with inside of Hub-Flange, the other three have the longer (threaded) Studs projecting from flange, on to which are screwed
- (d) The three Sleeve-Nuts, which extend right through the wheel and near Hub-Flange, for convenience in operating from outside of Hub—a supremely accessible position.



These Sleeve-Nuts bolt the Hub firmly on to the Sprocket—although without them the wheel would still drive perfectly secure—thus making security doubly secure.

- (f) A specially strong Centre-Pin, threaded at end, passes through hollow spindle and engages with an internally threaded Dummy Bearing, permanently fixed through Sprocket-centre in proper position in opposite Fork-end, and on being screwed up with Distance-Piece it locks the whole up tight and the WHEEL DRIVES SOLID with SOLID Spindle.

THE A.J.S. DETACHABLE WHEEL HAS NO “DOG DRIVE”—NO “BACKLASH”—NO FRICTION OR STRAIN—NOTHING TO SET UP WEAR OR TO WEAR OUT—NOTHING TO GO WRONG!—THE WHEEL IS PERFECTLY RIGID AND SOLID WITH DRIVING SPROCKET.

So much for its “constructional features.”

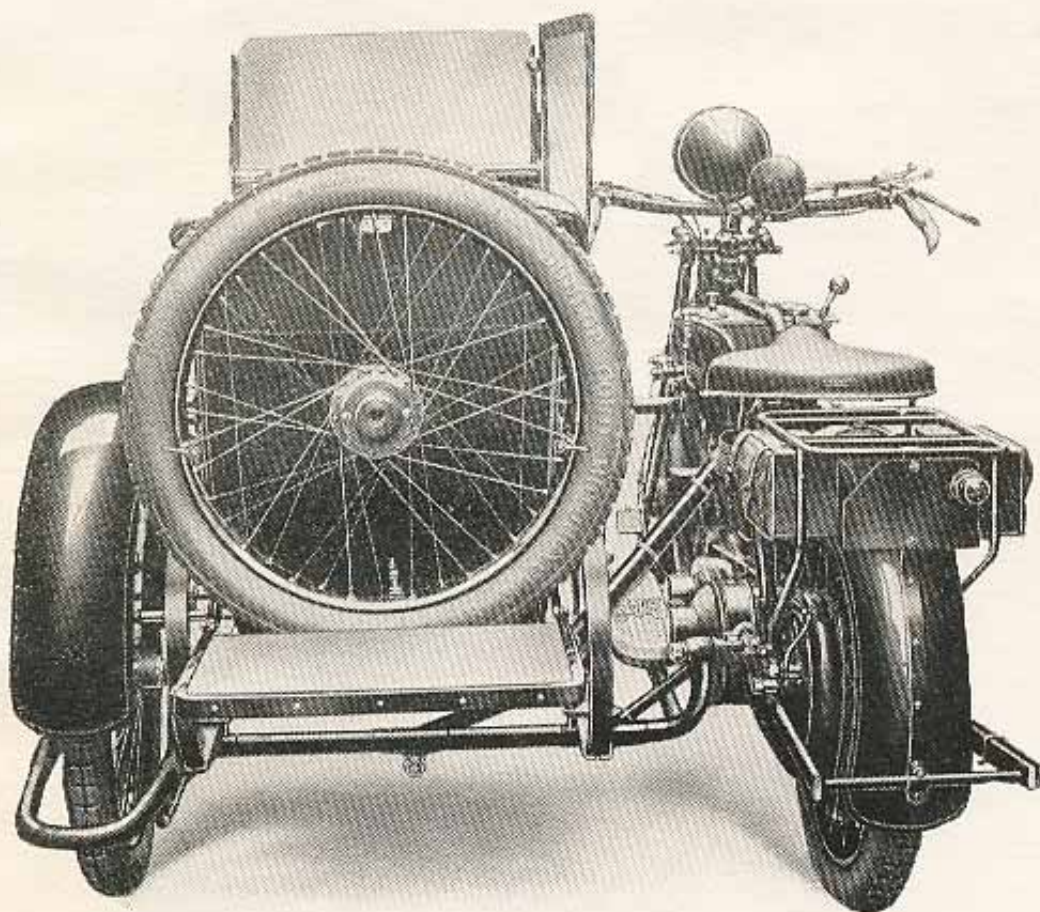
Briefly, its ADVANTAGES may be summarized as below—and it should be noted that IT IS THE ONLY DETACHABLE WHEEL IN THE WORLD WHICH EMBODIES THESE FEATURES IN THEIR ENTIRETY—

1. It is SIMPLICITY itself!—no complicated parts to unravel, or adjust after detaching or interchanging.
2. No need to alter, remove or displace any part of mudguard or mud-guard stays.
3. “Simply 3 Nuts and Centre-pin to unscrew and the wheel is OUT!”
4. Wheel comes away complete with bearings (latter entirely undisturbed), leaving the Chain in its place in chain case, exactly as before.
5. It is detached in 30 SECONDS!!
6. Wheels complete can be detached and interchanged within a minute!
7. Inner Tube can be abstracted entire and repaired, or New Inner Tube put in, without interfering with Wheel position—the withdrawal of Centre-Pin and Distance-Piece leaving a clear space  $\frac{3}{4}$ " wide through which to pass the Tube—the Wheel, meanwhile, remaining suspended in its correct position!



ADVANTAGES—(continued).

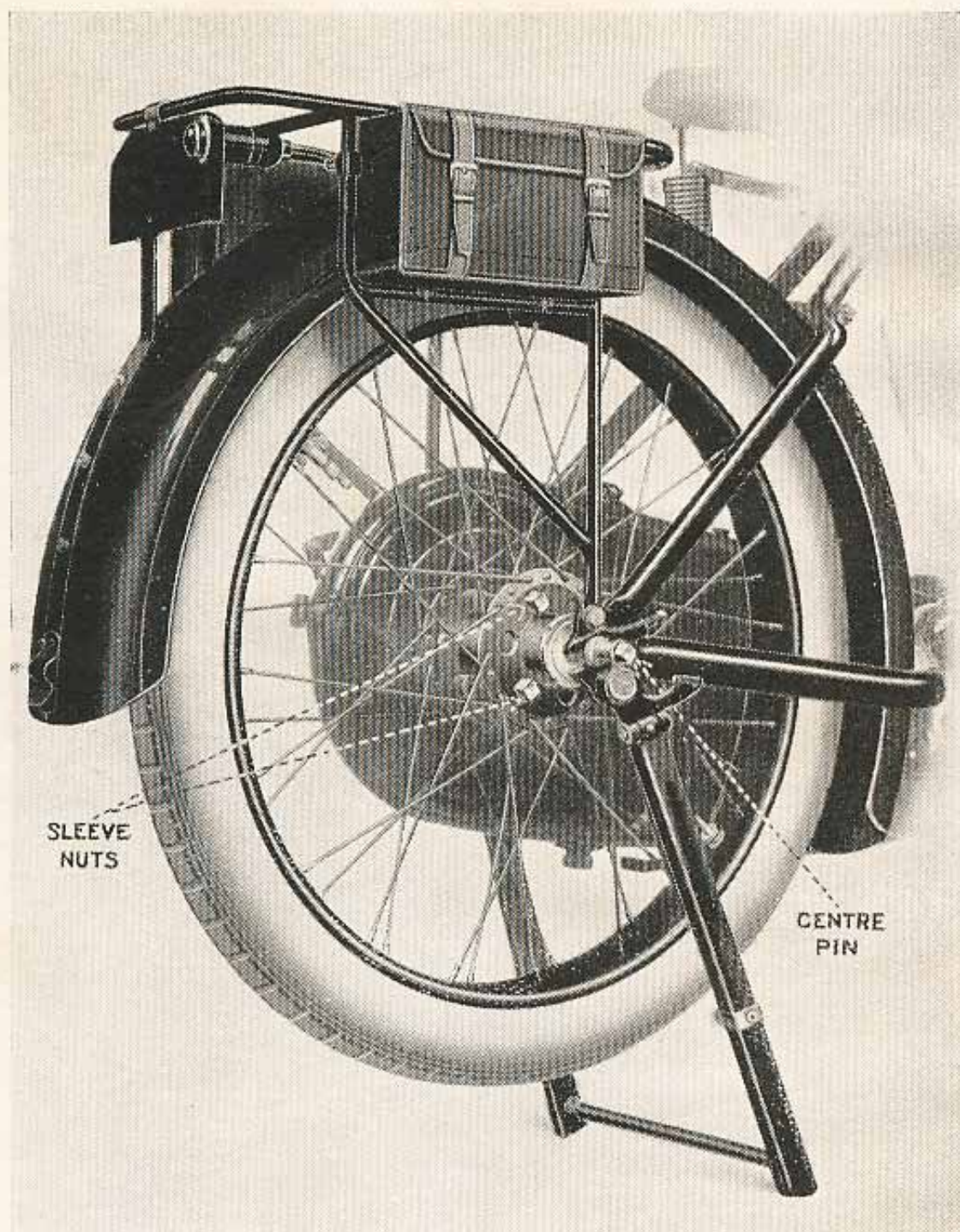
8. Helps you **SAVE MONEY ON TYRES**, because you can interchange Front, Rear or Sidecar Wheels when they show signs of wear, and how supremely satisfactory to be able to carry a Spare Wheel complete with Tyre, ready to instantly replace either Rear, Front or Sidecar Wheels should they, through any unforeseen occurrence, become injured or punctured.
9. Ensures your perfect comfort and sense of security awheel from puncture troubles or bursting, worn-out covers, because with interchangeability, and the carrying of a Spare Wheel, you may ride free from fear of ever being let down on the road.



HOW THE SPARE WHEEL IS CARRIED.

**The illustrations on the following pages clearly depict the method of detaching and fitting the wheels.**

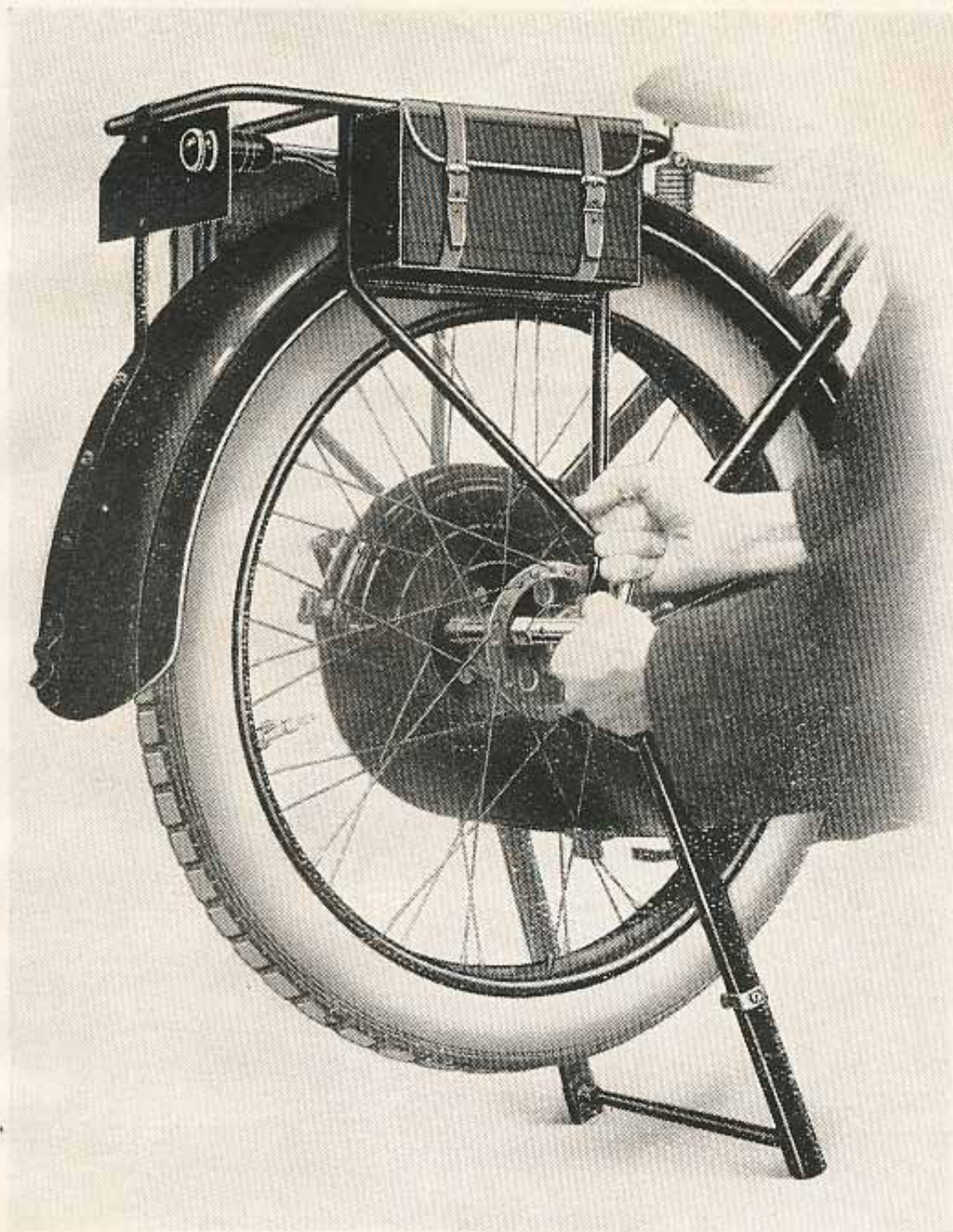




**No. 1.**  
**Rear Wheel on Stand, ready to detach.**

Only 3 Nuts and Centre-Pin to UNSCREW!!



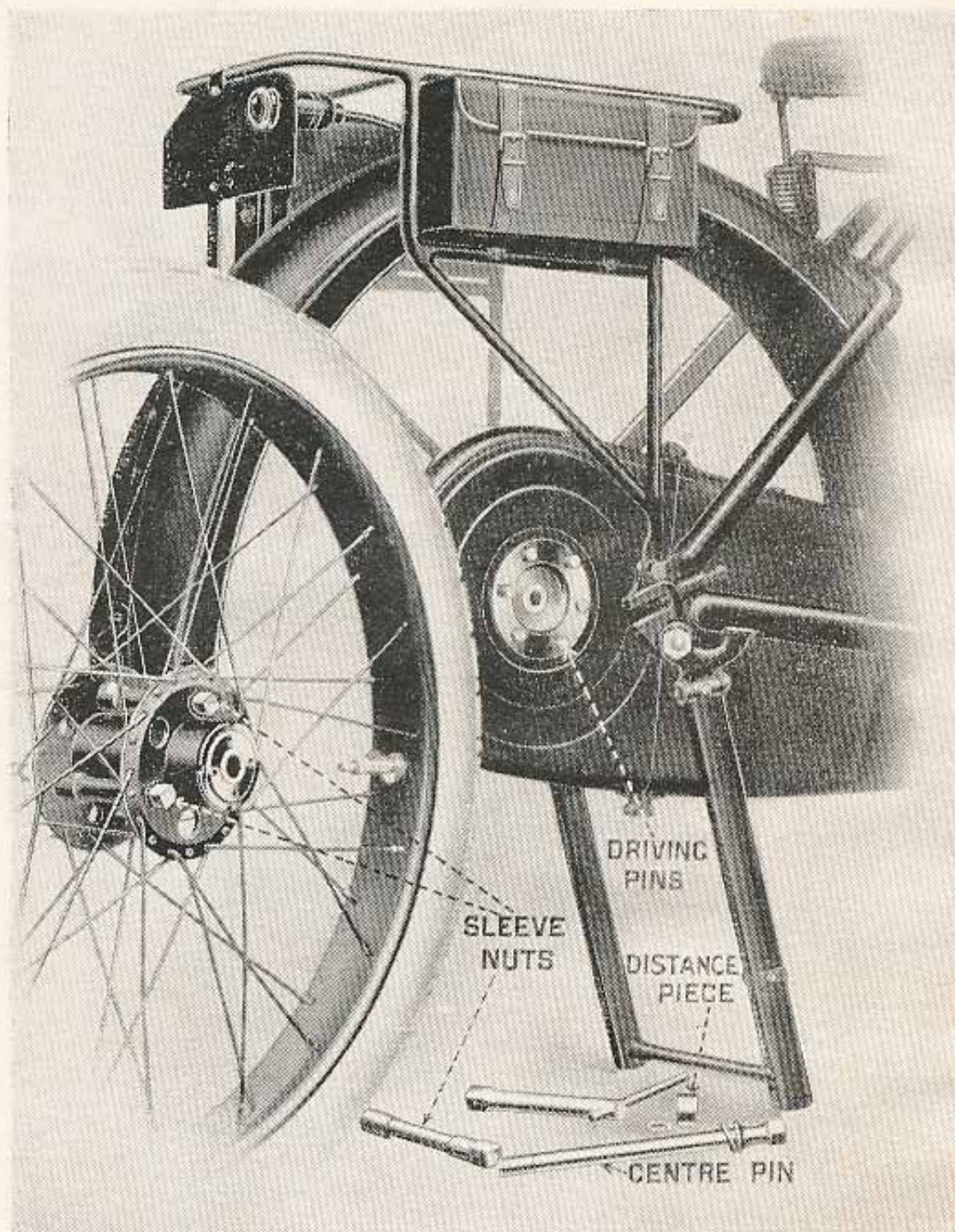


## No. 2.

### Detaching Rear Wheel; unscrewing Sleeve-Nuts first, then Centre-Pin.

This operation occupies **only 30 seconds** ! There are no Mud-guards to remove, nothing to alter or adjust.



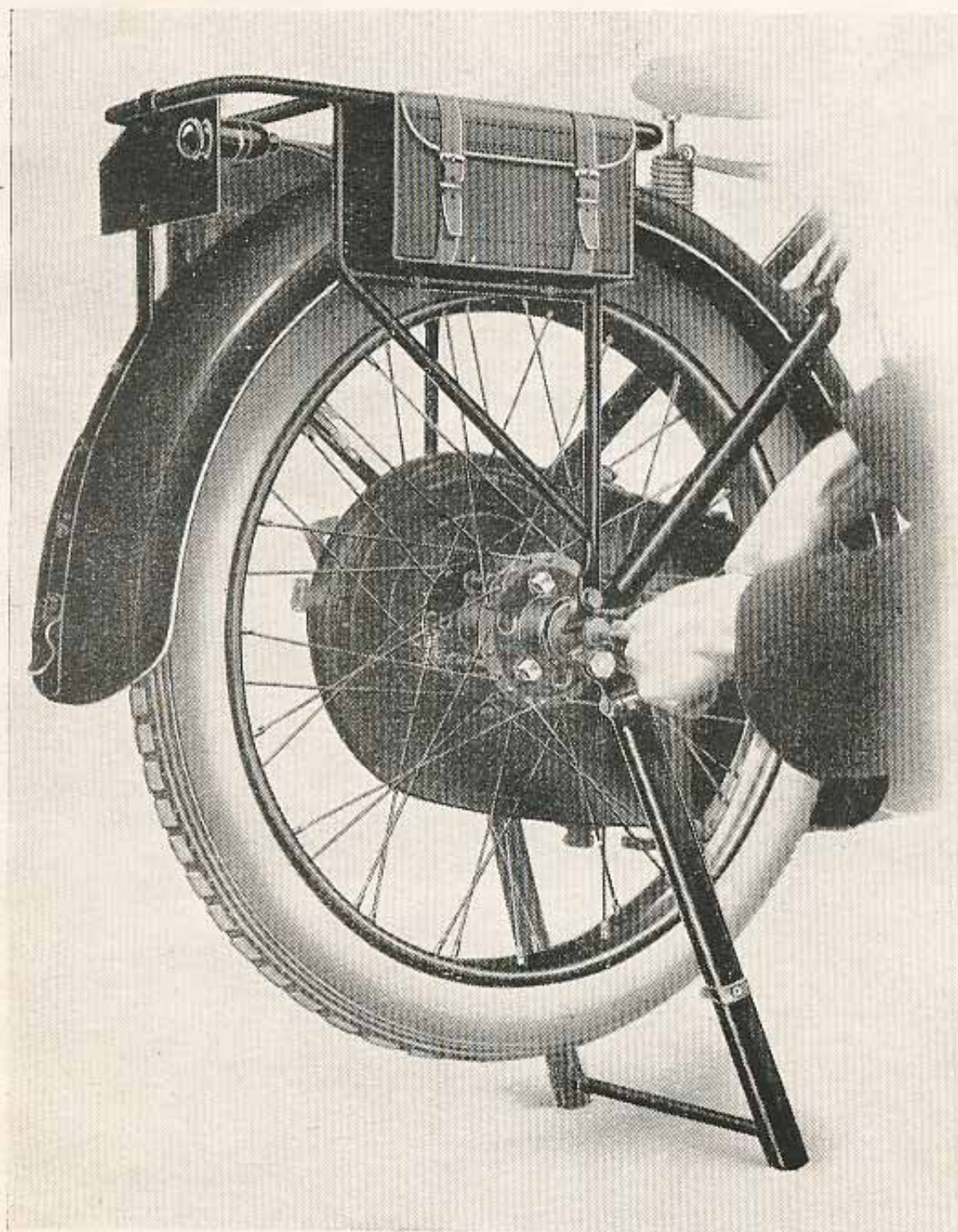


### No. 3.

## Rear Wheel detached. Ready for Interchange with Front or Replacement.

Do not withdraw the Sleeve-Nuts, when they will remain ready in position for attaching. Simply withdraw the Centre-Pin, with Distance-Piece, and then pull the Wheel bodily off the Driving Studs.



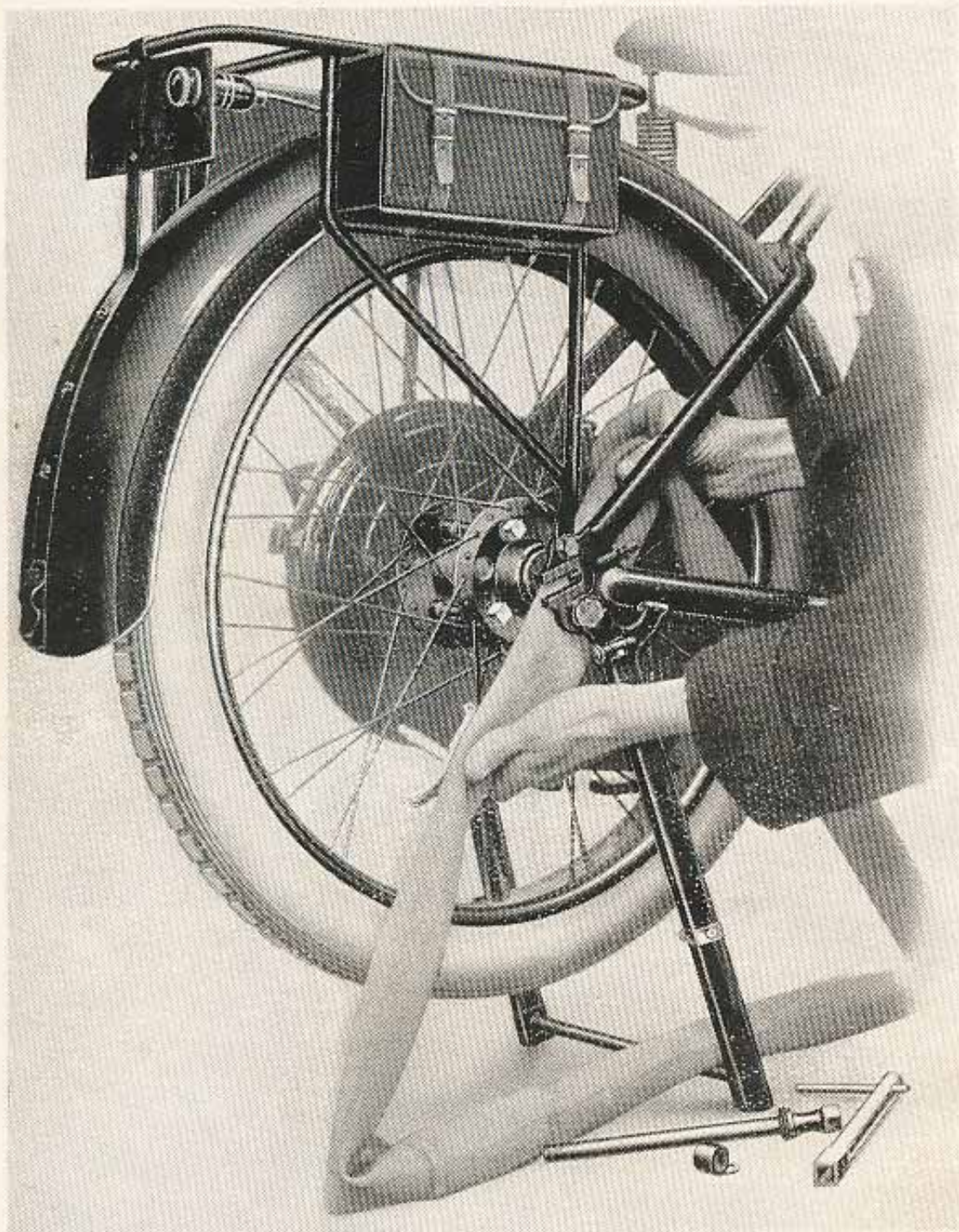


## No. 4.

### **Replacing Rear Wheel; screwing up Centre-Pin first, then Sleeve-Nuts.**

When replacing Wheel simply slide Wheel on to the 6 Driving Studs on Sprocket, put Distance-Piece in position and insert Centre-Pin, screwing it up tightly. Then screw up the 3 Sleeve-Nuts and the Wheel is complete again.

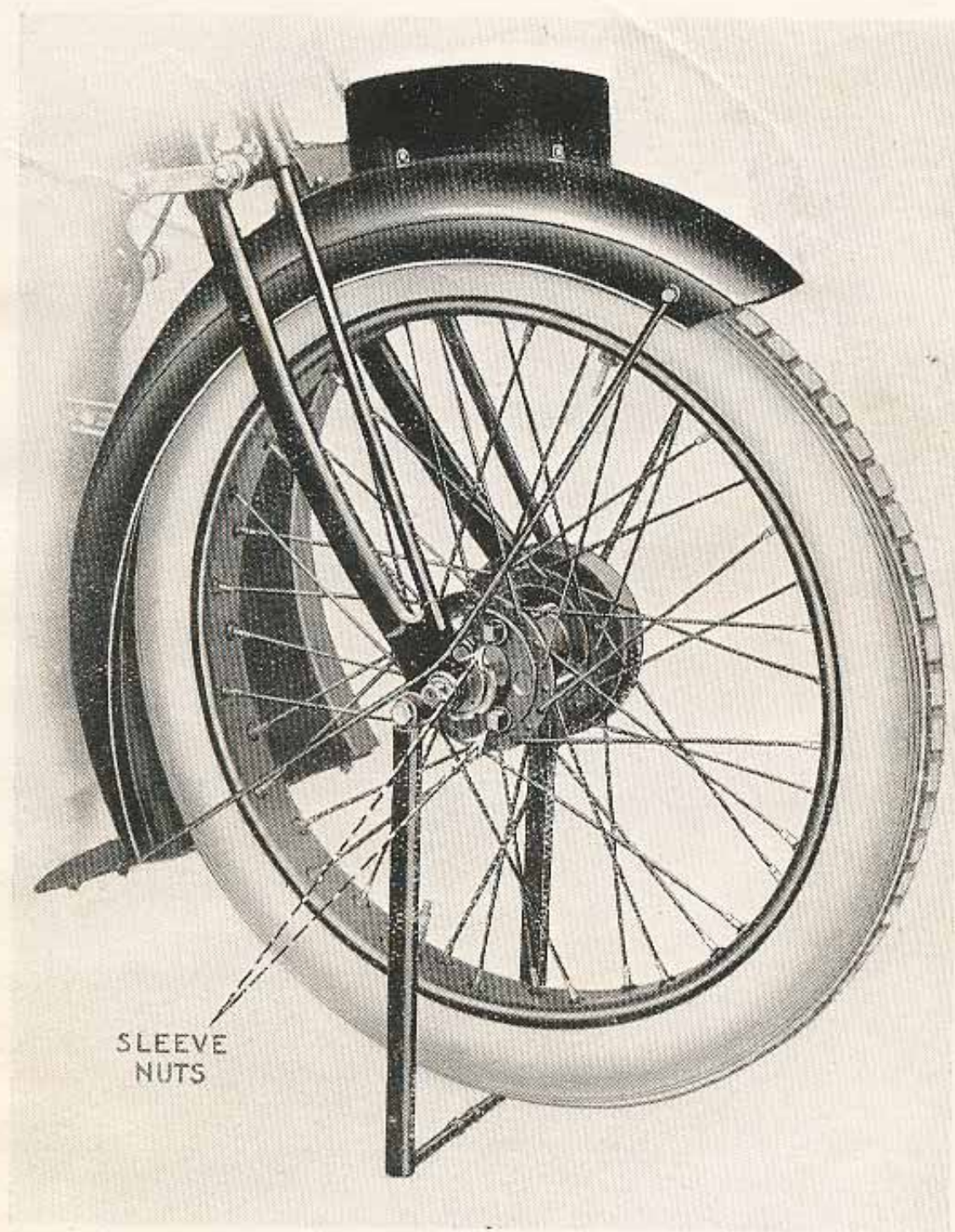




### No. 5.

Centre-Pin and Distance Piece of Rear Wheel withdrawn to allow Inner tube to be completely taken out and replaced without detaching wheel.



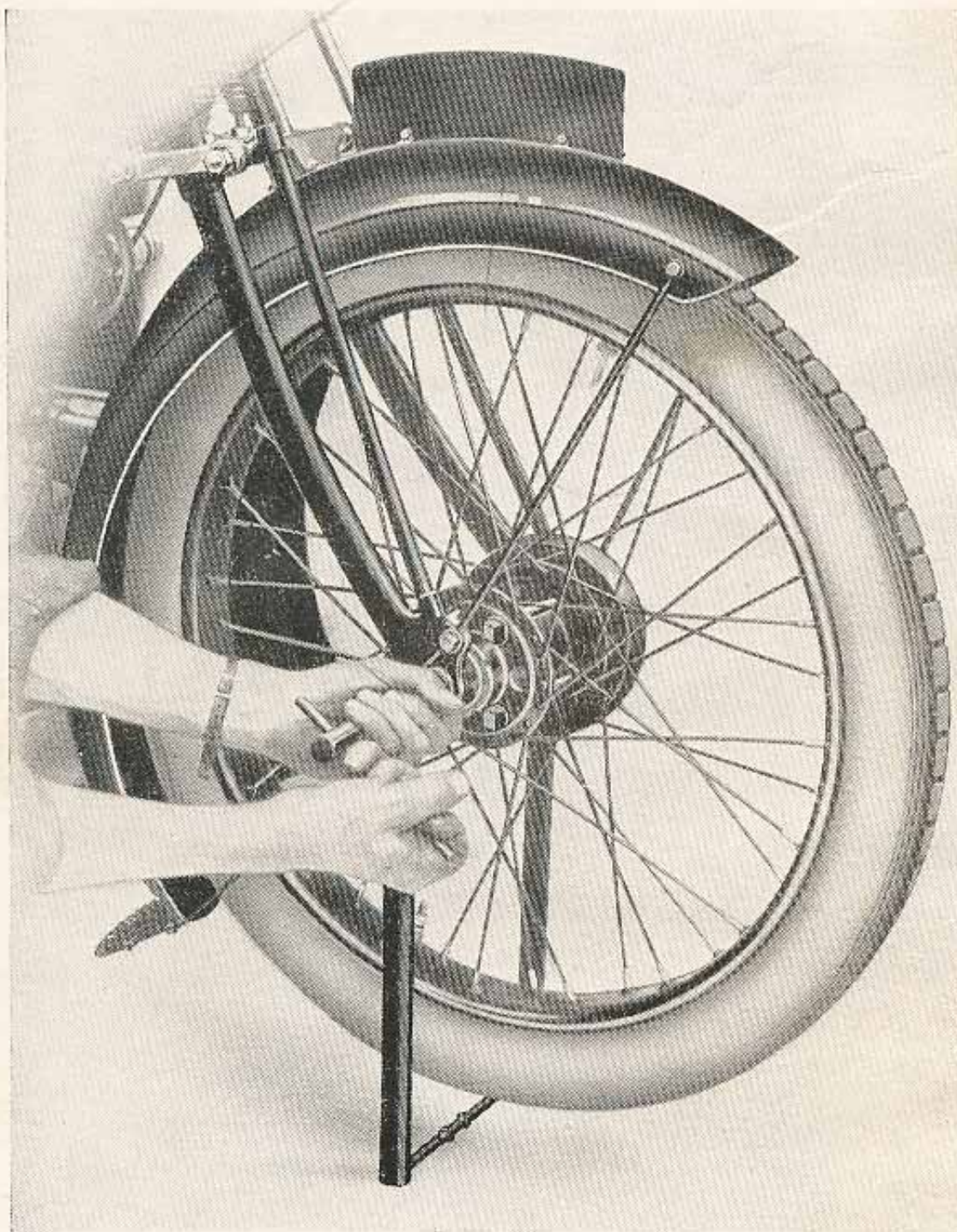


## No. 6.

### Front Wheel on Stand, ready to detach.

Method of procedure same as Illustration No. 1, but the three *plain* studs are not employed on front wheel; only the three threaded studs for sleeve-nuts.

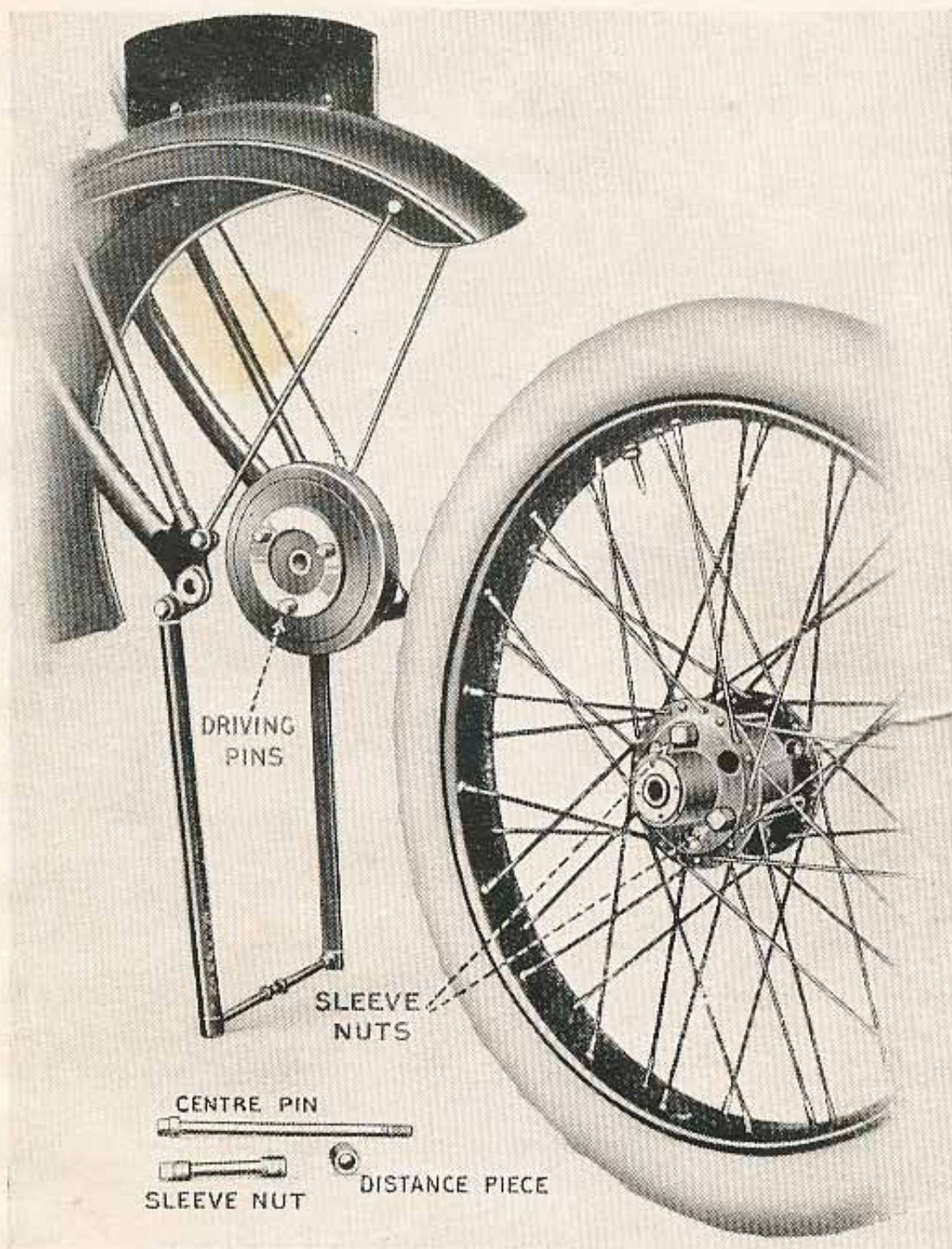




**No. 7.**  
**Detaching Front Wheel; unscrewing**  
**Centre-Pin.**

Procedure same as in Illustration No. 2.





## No. 8.

### Front Wheel Detached. Ready for Interchange with Rear, or Replacement.

Do not withdraw the Sleeve-Nuts, they will then remain ready in position for re-attaching. Simply withdraw Centre-Pin and Distance-Piece, then pull Wheel bodily off Studs.



# SPEEDOMETER INSTRUCTIONS.

## IMPORTANT NOTICE.

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With the introduction of the A.J.S. Patent Interchangeable Wheel system, the difficulty of Speedometer Drive Fitting was materially simplified. The A.J.S. system has never necessitated the dismantling of the drive in order to change over the wheels. The latest A.J.S. method is greatly improved and simplified, and when the front wheel is detached the whole of the driving mechanism is left absolutely intact and untouched. The fixing of the Front Wheel of the machine is now a counterpart of the Rear Detachable Wheel system, *i.e.*, the wheel is held in place by three threaded sleeve-bolts, which screw on to three studs projecting from the brake drum. The Front Wheel can thus be detached instantly without disturbing the drum in any way.

The large toothed driving ring for the Speedometer Drive is attached to this drum by three pins (see photograph showing Wheel Detached), and is thus to all intents and purposes an integral part of the drum itself. The small pinion driving the gear box of the Speedometer is supported from the front fork stay on the left hand side by a clip, which allows the small pinion to be accurately meshed with the large ring for correct adjustment. By reference to the two illustrations the method of fitting will be perfectly obvious.

We have arranged with the manufacturers of the "Bonnixsen" Speedometer, Messrs. Rotherham & Sons, Ltd., Coventry, and the Cowey Engineering Co., Archer Works, Kew Gardens, Surrey, to make a special drive and fittings for their Speedometer to fit the A.J.S. wheel. If, however, customers wish for any reason to have a Speedometer of another make fitted, it is imperative that they should ascertain definitely whether they make the special fitting to suit A.J.S. machines.



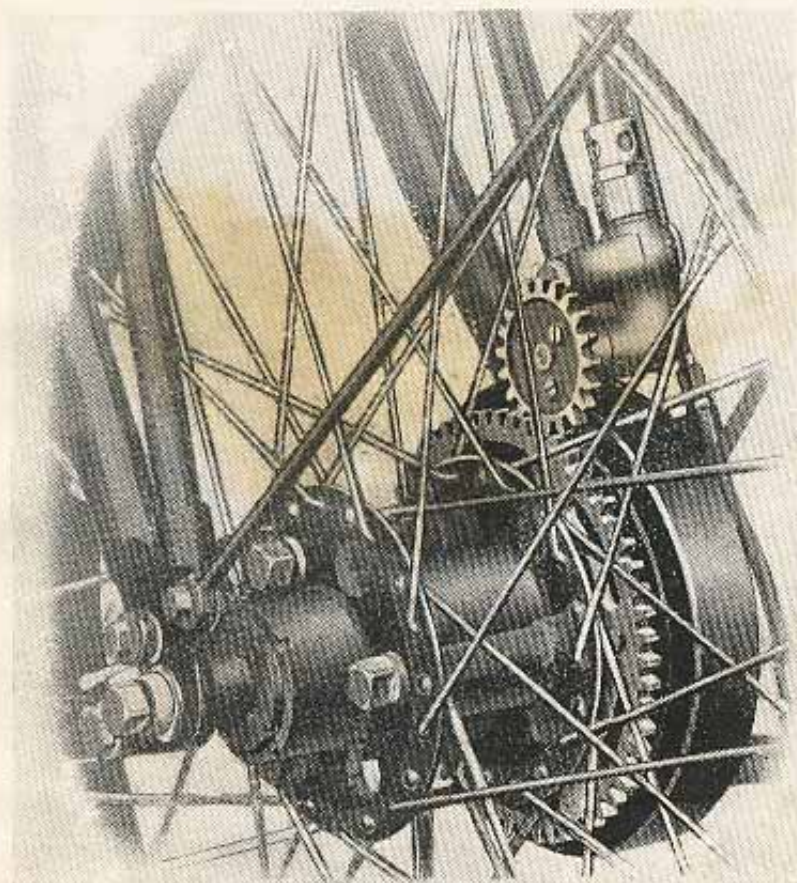
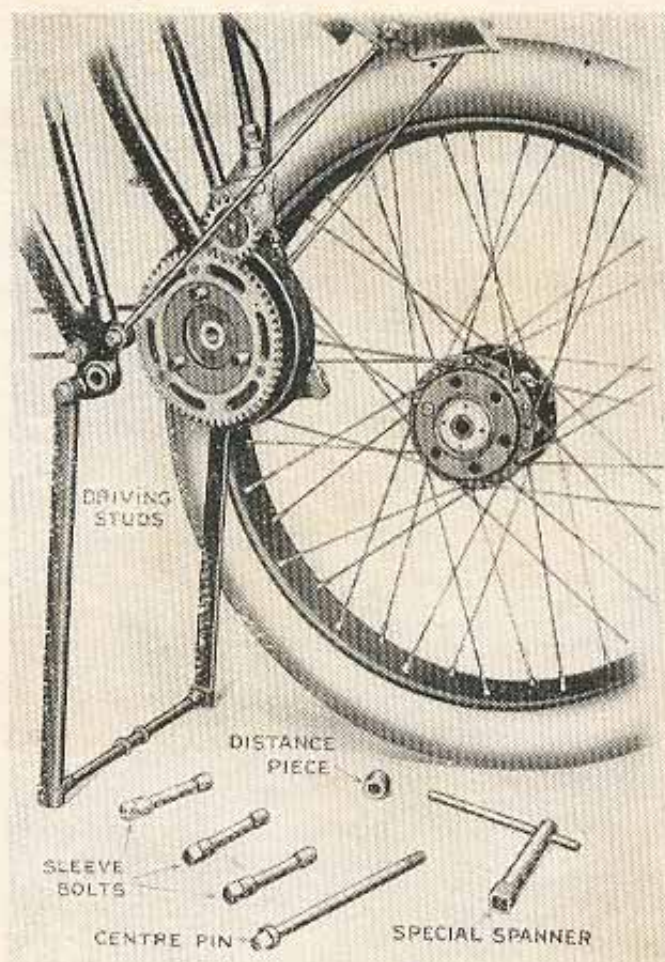


Illustration showing  
A.J.S.  
Speedometer Drive  
and  
Front Wheel  
Fixing.

Front Wheel Detached.

—  
The Speedometer Drive,  
it will be seen,  
is left untouched when  
the Wheel is taken out.





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