

the foot of the vertical Rod give additional steadiness to the stand, whilst further Flanged Wheels should be added to a short Rod secured in the opposite end of the movable Coupling to counter-balance the weight of the prongs.

**(18)—Compressed Air Storage**

Probably many readers have used a bicycle-pump in order to test model steam engines, and they may have noticed that a much greater speed is obtained from the use of air-pressure in place of steam. A suggested "tank" in which compressed air may conveniently be stored consists of a length of old inner tubing as used on automobile wheels. The ends should be united by the vulcanising process, or failing this, tied very securely with cord. An air valve, with core removed, allows the air to escape freely into a small rubber tube leading to the steam engine. A second valve should also be provided complete with core, for use when inflating the storage tube. A pinchcock may be attached to the tube leading to the engine, so that the latter may be stopped and started as desired. The "tank" is pumped up to about twice its normal size, when it will run the engine for several minutes before the air pressure need be renewed.

**(19)—Scriber**

E. R. Philips (Teddington) has made a scriber with the aid of Meccano parts. The marking point—a gramophone needle—is gripped by the set-screw of a Coupling, in the other end of which an Axle Rod is inserted to form the handle. This makes a very useful tool with which model-makers can mark out dimensions and designs on metal.

**(20)—Binding the "M.M."**

E. R. Baddeley (Stourbridge) sends a practical suggestion in connection with the "M.M." Spring-back Binders. He found that the Magazines when inserted in the binders were apt to slip too far within the case, with the result that a portion of the reading matter in the inside columns became invisible. He therefore procured a large circular cork, and splitting this longitudinally down the centre, placed the segments between the rounded back of the binding case and the inside edges of the Magazines, so holding them in the correct position.

**(21)—Braking Electric Trains**

Wilson Robson (Blyth, Northumberland) sends a suggestion for use in connection with electrically-operated railways. A projecting lever attached to the locomotive is caused to strike, in passing, the arm of a small switch placed alongside the track, and so breaks the circuit. The switch may be placed outside a station so that the train will run alongside the platform before pulling up.

**Suggestions Received**

The following Suggestions have been received and are having attention: Automatic Signalling and other devices, for use with Hornby Electric Train (J. B. Gibson); Automatic Switch (Albert Pickering); Spring Pistol (Wm. McLauchlan); String Cutter (G. B. Rees and F. Martin); Meccano brake (W. L. Holcroft and others); Accumulator carrier (J. Heap) and many others.

**(22)—Carpenter's Brace**

(G. Muirhead, Manchester)

We are able to illustrate in Fig. 18 another useful and very novel tool for fretworkers—a miniature brace and bit. Incidentally, it employs the Meccano Crankshaft in a manner that is probably new to most of our readers.

The Crankshaft 1 is mounted in one end of a Coupling 2 and carries two 1" loose Pulleys 5, which are held in place by a Spring Clip 6. When in use, a 1½" Pulley 3, with set-screw removed, is placed on the

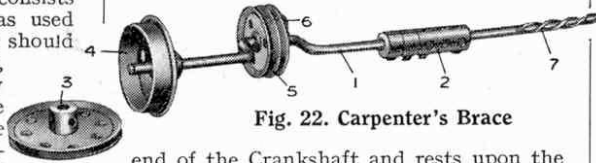


Fig. 22. Carpenter's Brace

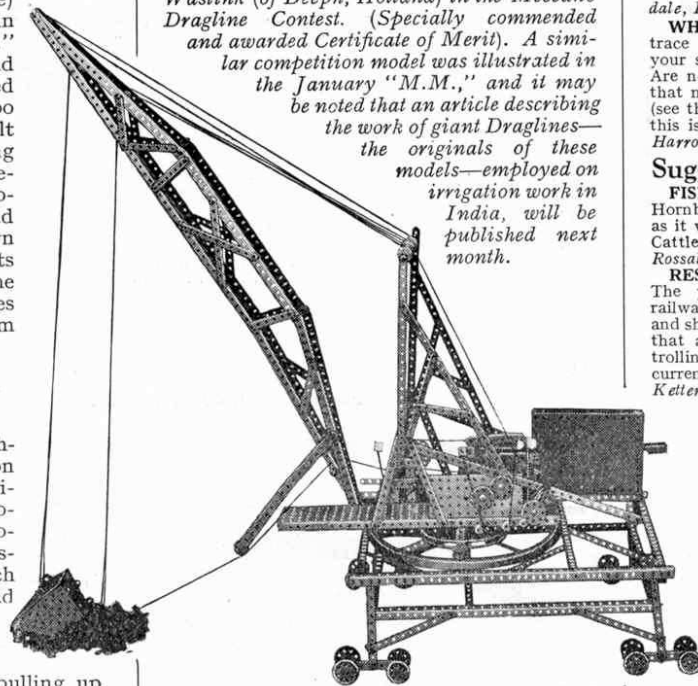
end of the Crankshaft and rests upon the Flanged Wheel 4. The tool is steadied by the Pulley 3, which remains stationary in the hand, while the Crankshaft is rotated from the handle formed by the Pulleys 5. The tool-piece 7 is secured in the opposite end of the Coupling 2 by the set-screw.

Suitable tools for use with this brace are found in any fretwork outfit, or may be obtained from ironmongers or dealers in fretwork accessories.

Further contributions for the Suggestions Section are invited. Special awards of five shillings each will be paid for any suggestions published showing special merit, whilst the senders of all other contributions used (not including, of course, those mentioned under "Replies") will be presented with complimentary copies of "Meccano Standard Mechanisms."

**Another Model Dragline**

An interesting model, submitted by G. Waslink (of Deeph, Holland) in the Meccano Dragline Contest. (Specially commended and awarded Certificate of Merit). A similar competition model was illustrated in the January "M.M.," and it may be noted that an article describing the work of giant Draglines—the originals of these models—employed on irrigation work in India, will be published next month.



**This Month's Awards**

Five shillings will be awarded to each of the contributors concerned for Suggestions Nos. 13, 14, 15 and 22, whilst the senders of Nos. 16 (three awards), 17, 19, 20, and 21 will each be presented with a complimentary copy of "Meccano Standard Mechanisms."

**In Reply**

In this column we reply to suggestions regarding improvements or additions to the Meccano and Hornby Train systems. We receive many hundreds of such suggestions every week, and consequently we are able to deal only with ideas that show particular interest or ingenuity. Every idea, whether acknowledged in this column or not, is carefully examined and considered.

**Suggested Meccano Improvements**

**BRAKE FOR CLOCKWORK MOTOR.**—Hitherto we have experienced no trouble with the brake lever in the Meccano Clockwork Motors. If you find that it is not reliable in action, the small projecting portion of the lever may be bent slightly in order to press more firmly against the governor disc. (Reply to Michael Richardson, Leebury).

**IMPROVING THE "M.M."**—We agree that it would be preferable to publish the Meccano Magazine without any advertisements at all, but if we did so, it would be necessary to charge our readers a shilling or more per copy instead of threepence! Although we believe our readers represent the most staunch body of supporters of which any journal can boast, yet we should not like to make quite such a demand on their pockets each month! (Reply to Cyril Hood, Taunton, and others).

**MODEL MOTOR-CAR.**—The manufacture of a constructional model motor-car as a separate Meccano product is not suitable. It is quite possible to build excellent models of this description with Meccano, as will be proved, we believe, in the "Motor" Competition. (Reply to F. Brocklebank, Ashton-upon-Mersey).

**Suggested New Meccano Parts**

**TRACTOR FUNNELS.**—There is little demand for a funnel of the type you suggest for steam tractors, etc., although we shall bear the idea in mind. Meanwhile, a very good substitute may be formed from four Double Angle Strips, of any desired length, bolted together at the ends. (Reply to J. B. Crossland, Lancaster).

**IMPROVED EYE PIECE AND FORK PIECE.**—(1) Your suggestion for an Eye Piece fitted with boss and set-screw is noted and will receive attention. (2) A Fork Piece may easily be connected to a Coupling by means of a 1" Rod. We do not think the adoption of a special boss would be sufficiently advantageous. (3) We do not know of any purpose for which slots in Flanged Plates would be particularly useful. Have you movements where they are necessary in mind? (Reply to Cyril Hood, Taunton).

**SPRING WASHER.**—We think that the small compression spring fitted to the Meccano Buffer (part No. 120A) should fulfil all the functions of your suggested spring washer. The spring is removed by unscrewing the nut on the end of the buffer. (Reply to L. Tweedale, Port Sunlight).

**WHEELS WITH DETACHABLE DISCS.**—We cannot trace many advantages that would be gained from your suggested wheel with adjustable discs or rims. Are not its functions covered by the various wheels that may be fashioned from existing Meccano parts? (see the "Wheels" advertisement on another page of this issue). (Reply to R. A. de Yarburgh-Bateson, Harrogate).

**Suggested Hornby Improvements**

**FISH VAN.**—The addition of a fish van to the Hornby Series is not likely to prove very popular, as it would be similar in design to the existing No. 1 Cattle Trucks and Milk Vans. (Reply to Jack Archer, Rossall Beach).

**RESISTANCE FOR LOW VOLTAGE CURRENT.**—The possibilities of a low-voltage model electric railway have occupied our attention for some time, and should we decide to proceed with this it is probable that a resistance will be designed suitable for controlling the speed of a train when running from a current of 4 or 6 volts. (Reply to M. Partridge, Kettering).

**TROLLEY SYSTEM FOR ELECTRIC LOCOS.**

—To adopt the Hornby Electric Train to run from an overhead wire would prove a costly matter on account of the extra gear necessary—such as the trolley, wayside standards, etc.—as well as adding difficulty to the preparation of layouts. In the British Isles, the third rail is in more general use than the overhead wire system. (Reply to Teddie Morton, Huddersfield).

**"HOME" AND "DISTANT" SIGNALS.**—Both the Hornby Signal and Junction Signal may now be obtained in "home" or "distant" types. These should provide the necessary signalling apparatus with which to furnish the average Hornby layout. Suggestions for signal gantries are receiving attention, but we doubt whether the demand is sufficiently large at present to warrant their introduction. (Reply to A. Hodgkinson, Fleetwood).

**MODEL CRANE.**—The manufacture of a special model crane for use in connection with Hornby railways is not necessary, for such models may be made with Meccano. Moreover, by using the existing parts, a greater realism will be effected at a smaller cost, while the builder is able to exercise his ingenuity in devising the type of crane most suitable for his particular requirements. (Reply to A. Hodgkinson, Fleetwood).