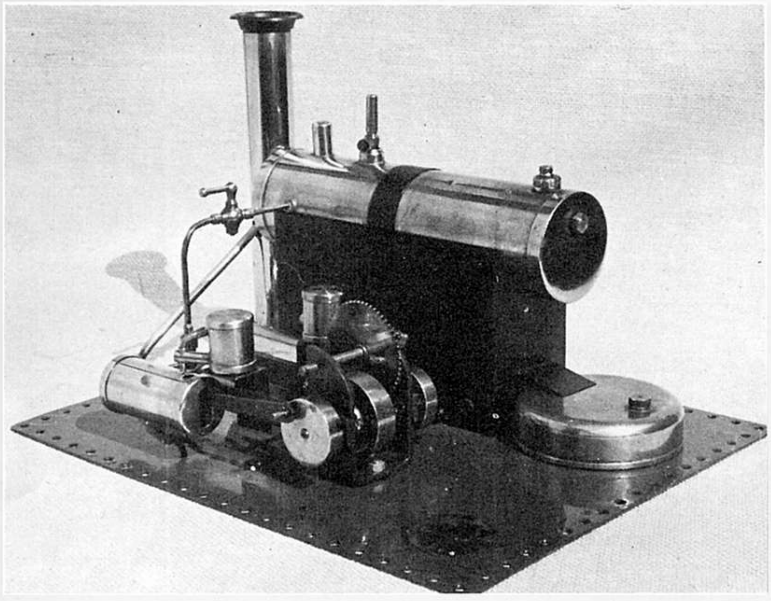
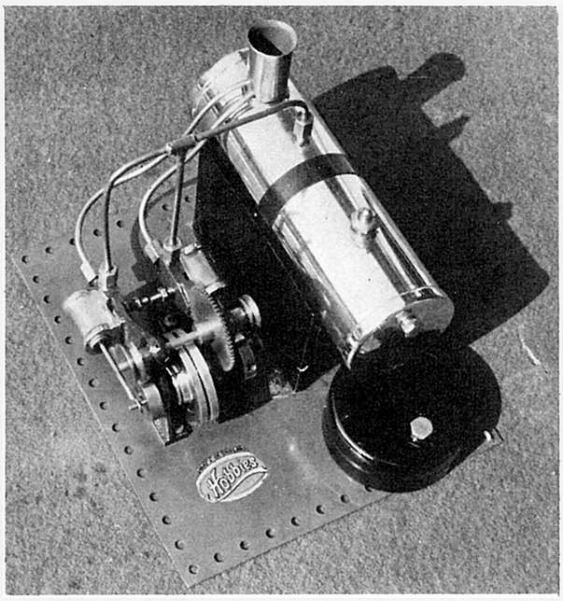




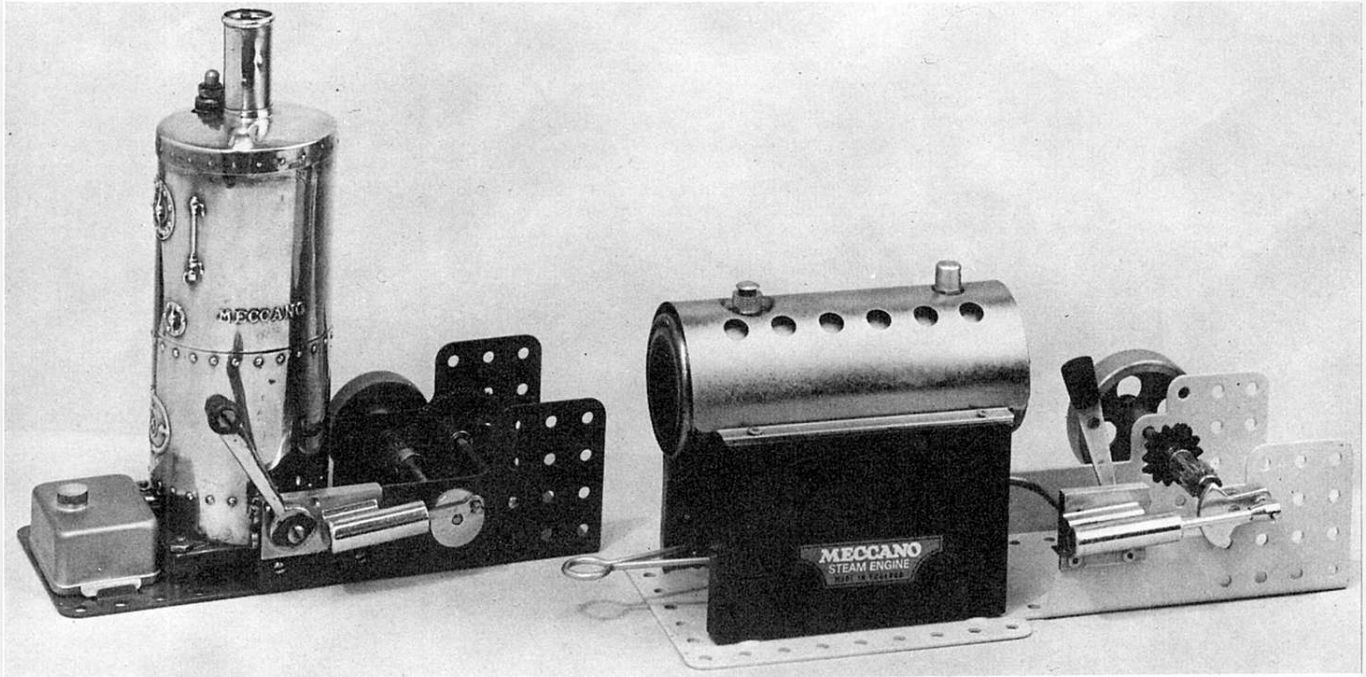
Above left, a Bowman twin-oscillating-cylinder engine, Cat. No. 122, of about 1927. It has drip-feed lubricators to oil the pistons as they partially emerge from the cylinders hidden under the large brass castings. Above right, one of the first Hobbies engines made by Geoffrey Malins after Bowman Jenkins gave up. Something of the current Mamod look can be seen in this early example, though the geared countershaft is very much a Bowman feature.

STEAM CAVALCADE

Steam power has been available to the Meccano modeller for almost as long as Meccano itself. BASIL HARLEY explains...

Although clockwork and electric motors have much to recommend them for simplicity, economy and ease of control the live steam engine has always had its devotees among Meccano engineers. In Britain and also in Germany miniature stationary steam engines, both "toy" and "model", had been made commercially long before Frank Hornby developed his great invention. By 1914 dozens of German makers were turning out spirit fired engines in their thousands with imaginative ranges of accessories for them to drive. I think it very likely that the first steam engine marketed by Meccano Ltd – the vertical engine of 1914 described by Bert Love in MMQ of October 1976 – was made in Germany. It bears all the hallmarks of one of Marklin's or Bing's standard production models. Many of these were imported (and labelled) by such companies as Bassett-Lowke, Redfern's of Sheffield and Gamages and there is no reason to doubt that Frank Hornby did likewise.

In the immediate post-WWI period German goods were pretty unpopular here and quite a few English makers started to produce stationary steam engines. There was Bar-Knight of Glasgow, Walter Piggott of London and Tribe



and Austin of Manchester among others. As in the case of the pre-War Meccano engine, however, none of their designs was in any way adapted for incorporation into the Meccano system. It was left to an imaginative maker of toy boats, Geoffrey Bowman Jenkins of Dereham in Norfolk, to first make, in the 1920s, stationary steam engines with steel base plates specially drilled and proportioned so that they could be built into Meccano models. Not only that, they were also very good, precision-made and powerful engines. He wrote: "In introducing our model steam engines for driving Meccano, Erector and other models we are opening a new era to the young embryo engineer ..... Many makers of really splendid models had never had the supreme joy of seeing them run under actual working conditions. In order to obtain the utmost realism steam power was obviously required, but the foreign engines available were hopelessly underpowered and unreliable."

I have related the story of these Bowman engines and how the present-day Mamod engines are related to them in *Toyshop Steam* (Argus Books 1978). It must suffice for now to say that Hobbies Ltd. was the link and that they were all horizontal engines with oscillating cylinders, the larger models having twin cylinders. Somethimes these were hidden in larger, stationary brass castings designed to conceal their toylike oscillations. All the baseplates were flat with a row of holes on ½" centres drilled (yes, drilled, not punched!) round the edges. The more expensive engines incorporated a geared countershaft to increase the power. Though lacking the charm and realism of the best German engines, these Bowman models were solid hardworking and efficient. By 1927 it was claimed that over 200,000 had been sold.

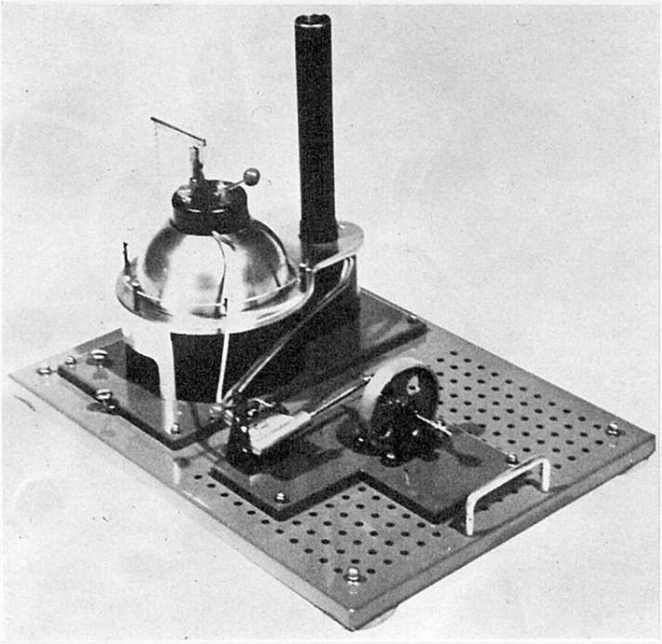
About the same time Warboys and Smart advertised their engines as being suitable for building into any Meccano model. They were also made in Dereham and Captain Smart was a relative of Bowman Jenkins – hence the "Jenkins Patent" under the trade mark.

The popularity of these designed-for-driving-Meccano-models engines must have influenced the Company to press ahead with its own version, the famous and most attractive vertical boilered engine of 1929. This, again described by Bert Love in Collector's Corner in MMQ for July 1973, bears some resemblance to the Wormar range, but has a baseplate with folded-up lugs perforated for the countershaft, crankshaft and other gearing. The crankshaft itself is of smaller diameter than the standard Meccano spindles and it is interesting that the present day Meccano Steam Engine, now made by Mamod, still has the same baseplate conformation *and* a similar sized crankshaft. This was specified by Meccano Ltd. when it was introduced in 1965 and a Mamod horizontal boiler was incorporated. A pity, really – the vertical boiler is so much more elegant and more suitable for building into cranes.

To return to the 1930s, this was an era of widespread competition to the Meccano system. *Erector* was popular in U.S.A. and, in Germany, they had *Industrie* (J. Falk), *Modello* (Ernst Plank), *Phantasie* (M. Kohnstam) and Marklin's sets, not named, with variants *Marbi* and *Elex*. Then there was *Trix* and later an English-made aluminium set called *Elgin* together with the tubular and clip systems *Anchor* (Bassett-Lowke) and *Technofix* (Einfalt). But despite this wealth of construction sets, no German steam engine maker made any attempt to design engines to fit into the systems. Marklin made an ingenious convertible steam motor which could be assembled as a vertical, a traction, or an overtype semi-portable engine and, although shown in the 1934 catalogue as a power unit for their construction sets, it was in no way adapted to be used easily with them. Towards the end of the 1930s the Meccano engine was discontinued and just before WW II only the new Mamod engines which had succeeded the Bowman range had bases drilled with "Meccano" holes.

Soon after that war, in the late 1940s and early 1950s, there was quite a flood of inexpensive English steam engines whose makers were often short-lived. Again, few were adapted to the system, but one, the rarely found *RODE* overtype engine of 1948 was specifically advertised as "drilled to work with Meccano". Abroad, the makers dwindled in numbers and today the best-known and virtually the only ones left, Wilesco in Germany and Jensen in U.S.A., make no design concessions to Meccano at all. One, however, a newcomer in the last year or so from Sweden, the John Ericsson engine made by Ab Alga, has a large base well drilled to provide a good foundation for complex models. It is an interesting engine with a most attractive (thought tiny) haystack boiler and a reversing single-acting, single-cylinder, oscillating engine. Quite different in appearance to any of the earlier engines, it is worthy of some special Meccano models being created for it.

It is fitting that, in England, the Meccano steam man has been most consistently served over the past thirty years or so by the wide and expanding range of Mamod engines – typically English and made in the heart of the Black Country. And we include in this the Meccano Steam Engine itself since it is also a Mamod engine, made by Malins (Engineers) Ltd. of Brierley Hill, West Midlands.



Left, a rare example of the 1929 Meccano Steam Engine making an interesting comparison with the contemporary Mamod-made engine on the right. Right, the Ab Alga engine called the John Ericsson. Far right, the RODE engine of 1948 typifies a large number of post-war engines made in very small quantities and for a very short time.

Above, an advertisement from a 1927 M.M.