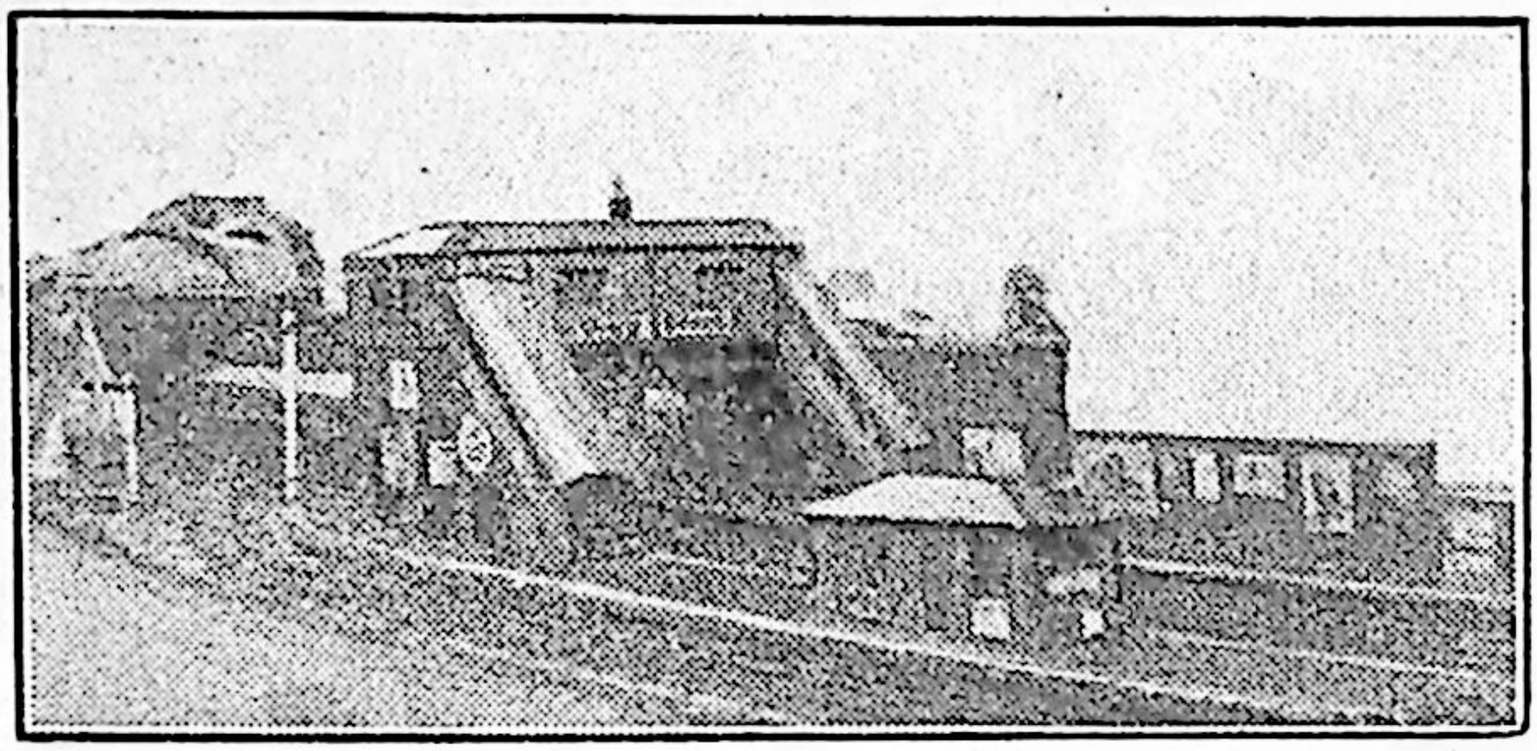
PLANNING A MODEL RAILWAY



This photograph shows a station, passenger foot-bridge and tunnel on a model line.

THERE is probably no more fascinating and all-absorbing hobby than that of building and running a model railway; when an ordinary amount of intelligence is brought to bear on the subject, it also becomes really instructive and it is surprising how much very useful knowledge one accumulates regarding the various things which go to the making up of a complete system.

Generally speaking, there are two ways of becoming possessed of a model railway; one is by purchasing the various items from the model shops, the other is by making the greater part of them oneself.

Anyone with a long purse can buy the necessary accessories and pay for the whole thing to be fitted up and set to work for them, but there is a great deal more pleasure to be derived—and it is considerably more instructive—to make everything oneself. Of course, it requires a very much smaller outlay, an important consideration to many.

The would-be model railway engineer should set to work with the determination to make everything with his own fingers—as far as possible. What he can compass in this direction, apart from personal skill, will depend to a certain extent on what is available in the way of a workshop and tools. For instance, it would not be possible to make the wheels for the wagons and coaches without the use of a lathe, neither could one make all the parts and build a locomotive without one.

There are, however, a great many things that can be made quite well with very few tools indeed—bridges, buildings, wagons, signals, and so forth, not to mention the all-important part of laying down the track with its various accessories.

There are two distinct kinds of model railways: the portable one, which is usually laid on the floor of a room or on the ground when in use, and taken up and packed away again when finished with, and the permanently fixed one, which is undoubtedly the better of the two.

The subject of permanently fixed model railways is a very big one indeed, and can only be lightly touched upon here. There is, for instance, a considerable difference between the indoor and outdoor ones. The outdoor system entails a good deal more work, and requires special treatment and care to protect it from the weather. Unless the model is built on a fairly large scale—say, three-quarters of an inch to the foot, certainly nothing less—it is necessary to have it raised above the level of the ground, on a shelf or platform supported on posts, or some similar arrangement; experience having proved that it is perfectly hopeless to lay a small scale one on the ground. The difficulty lies not in actually laying it down and fixing the various

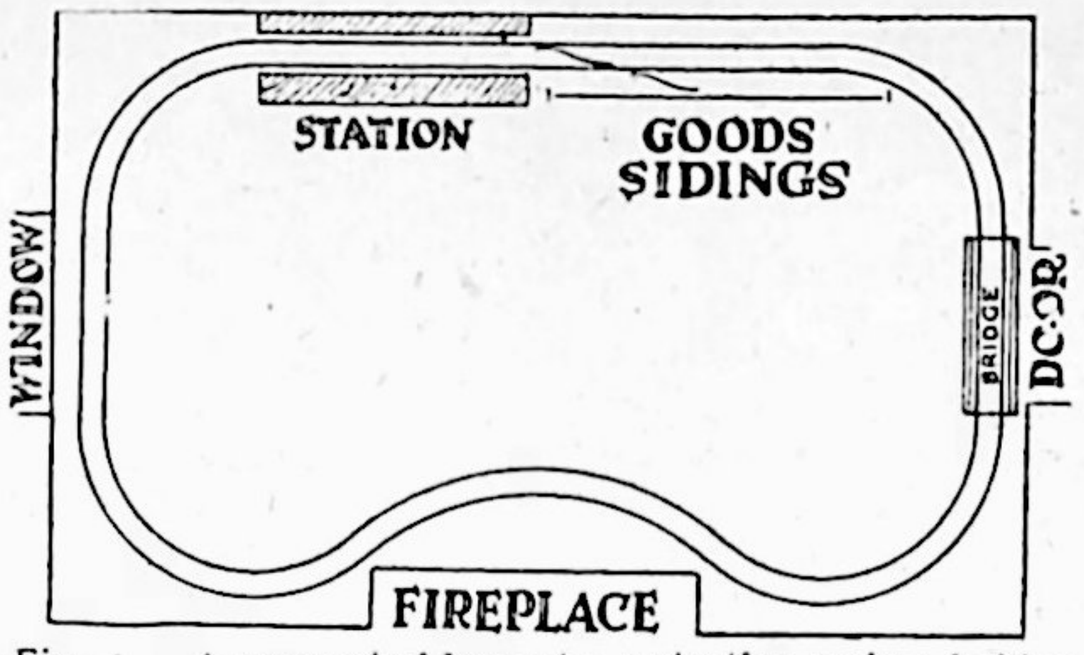


Fig. 1. A suggested layout; note the swing bridge in front of the door.

parts—although this is quite bad enough—but in keeping the whole thing in order afterwards; repairs and adjustments are continuous, and the line depreciates at a most alarming pace.

There is a good deal to be said in favour of the indoor railway. The weather has no effect, one can work on it at any time, and it is usually during the long winter evenings that one puts in most time on it. But the indoor railway engineer is in most instances up against one overwhelming difficulty—want of space. When this is the case, it is necessary to adopt a small-gauge system. The smallest standard size—as most readers are probably aware—is known as 0 gauge, and is one and a quarter inches between the rails, the scale being seven millimetres to the foot.

We will suppose you have your room or other accommodation in which to set up the model. And now a word of advice: Don't be too ambitious. In other words, be content to start with quite a simple plan, say a double track of rails round the room, fitted with one station.

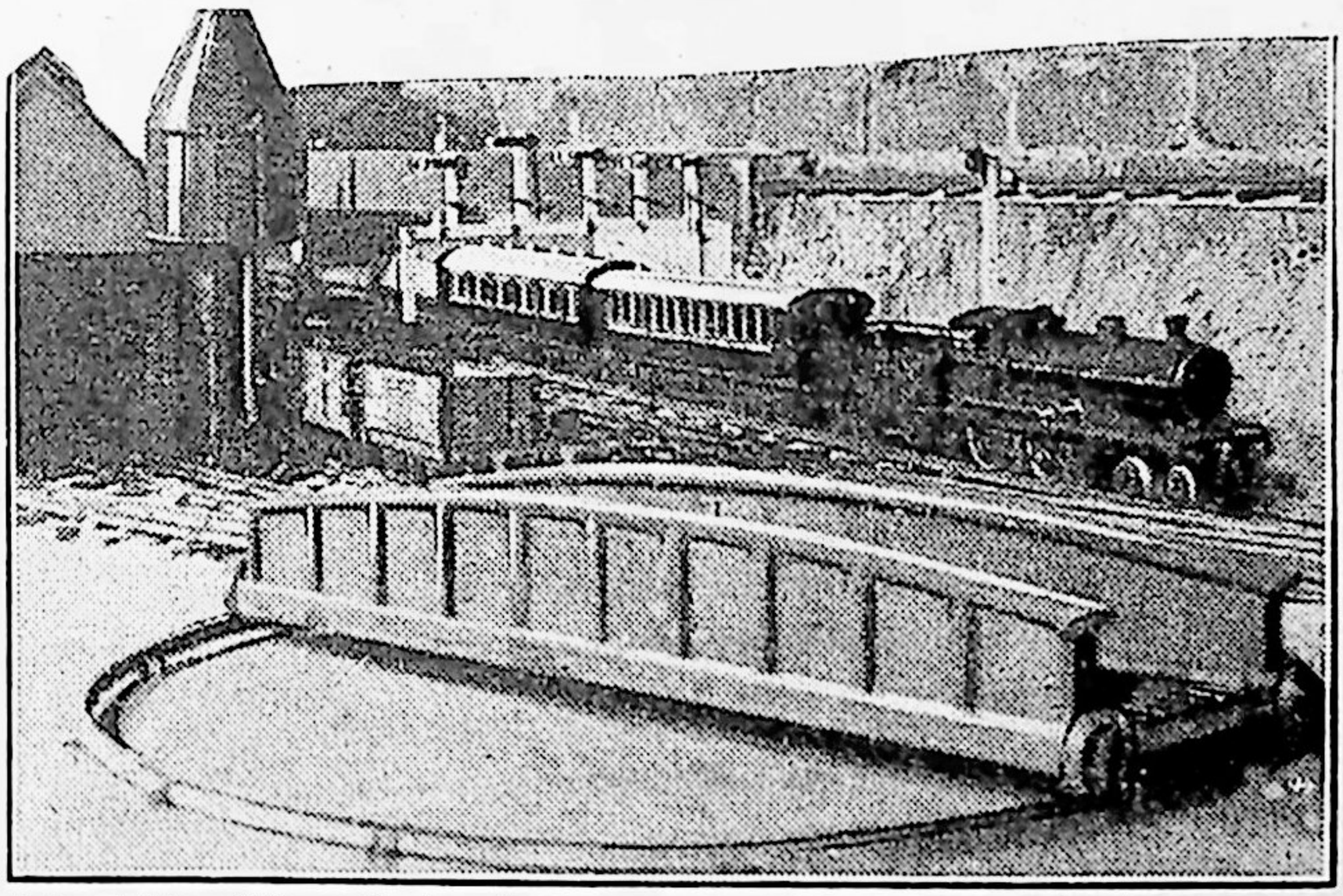
Even this very simple arrangement, if carried out properly, will take many months of spare time to complete.

The amount of detail there is in connection with one small railway station is astonishing, and will give the average enthusiast plenty of pleasant occupation.

Obviously, one cannot suggest any plan which would be suitable for all shapes of rooms or to comply with everyone's ideal of what a model railway layout should be, but that shown in Fig. 1 is recommended as a start. It is simple, but can be added to at any time, and elaborated to almost any extent, provided there is sufficient space.

A shelf, or platform, all round the room will be necessary. The height of this above the floor must be left to individual taste, but about three feet will probably be most convenient. This structure should be made of boards not less than three-quarters of an inch thick, anything thinner not being sufficiently rigid.

The boards are nailed on to a light framework, the whole being partly supported on legs and partly fixed to the walls, or entirely supported on legs; the latter is perhaps the best system to adopt if there is any likelihood of the whole arrangement having to be moved at any time.


A turntable will be noticed in the foreground of this photograph, which is a part of a model of Euston terminus.

Perfectly dry wood should be chosen, otherwise it will warp and gape badly at all the joints, as well as upsetting the rail levels and causing the points and other working parts to get out of order. The wood for the legs and cross supports, upon which the boards are to be nailed down, should be about two inches square.

In order to give access to the room it will be necessary to leave a gap in this structure at the doorway, and here is an opportunity for putting up a portable bridge.

Don't forget to provide a bolt inside the door, which must always be kept fastened when the bridge is in position. Otherwise, it is pretty certain that, sooner or later, someone will suddenly open the door from outside, with most disastrous results—your bridge will be sent flying across the room, quite possibly at the very moment your pet Pullman express is crossing.

When this shelf—which is really the ground upon which the railway is to be laid—has been fixed up, it will be advisable to examine it carefully in order to make sure that the whole top is properly fixed down, and that there are no springy places anywhere. Should any be discovered, the particular spot must be strengthened up by screwing one or more pieces of wood on to the underside.

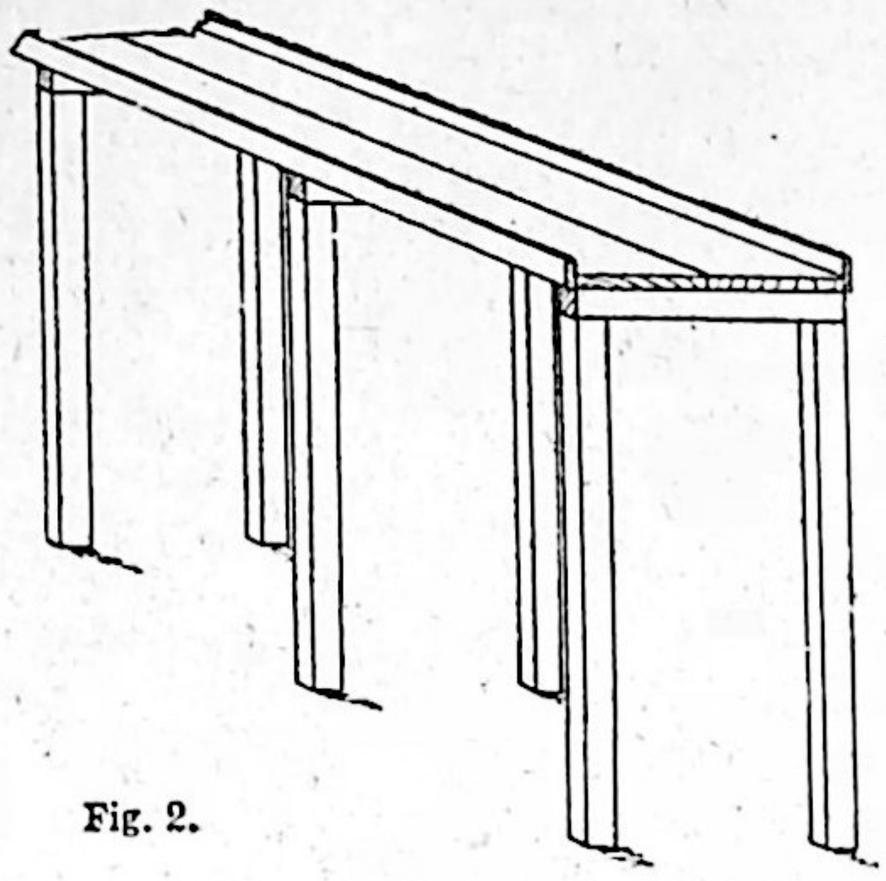


Fig. 2.

This sketch shows a section of the shelf upon which it is suggested the model railway should be laid.

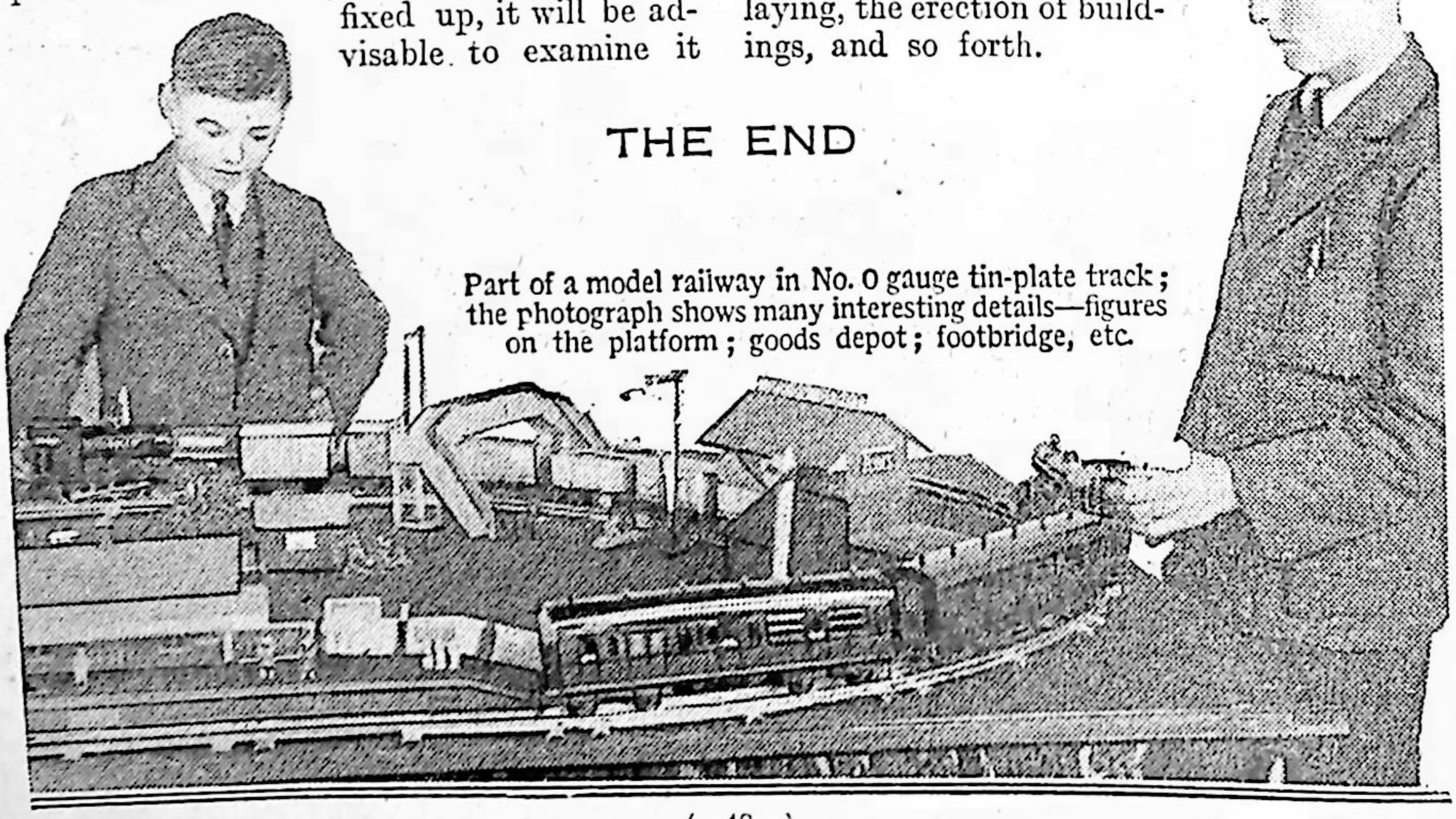
While on the subject of rigidity, it may be as well to say that the cross-bearers should be spaced about twelve to fifteen inches apart, not more, and every alternate one should be supported by a leg.

A light lath, about one and a half to two inches deep and three-eighths of an inch thick should be nailed all round the edge of the shelf, so that it stands up about one inch above the surface. This is in order to prevent the ballast from falling off.

A rough idea of this structure is shown in Fig. 2.

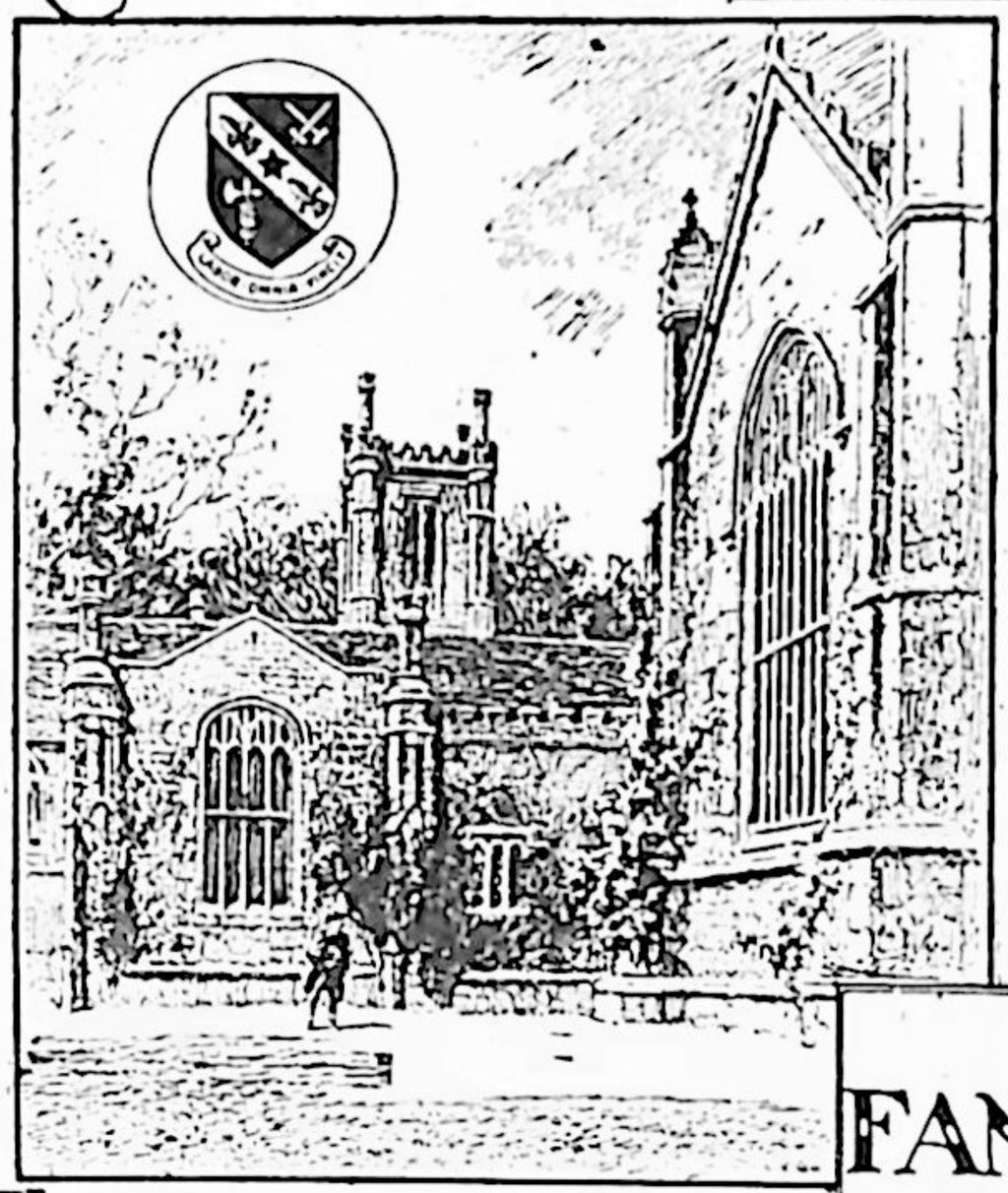
The whole may now be considered ready for the commencement of track-laying, the erection of buildings, and so forth.

THE END

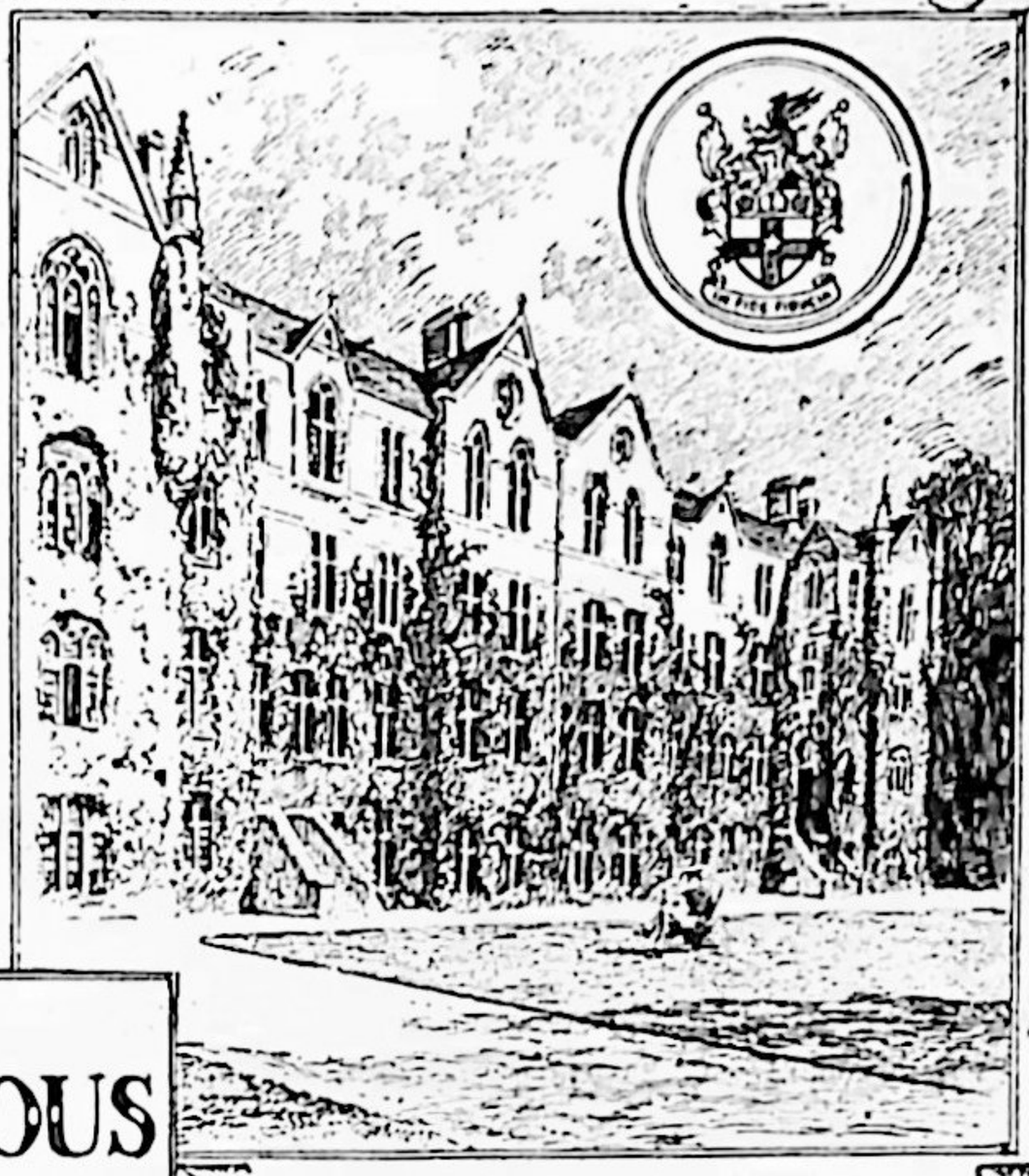


Part of a model railway in No. 0 gauge tin-plate track; the photograph shows many interesting details—figures on the platform; goods depot; footbridge, etc.

FAMOUS PUBLIC SCHOOLS



Cheltenham College



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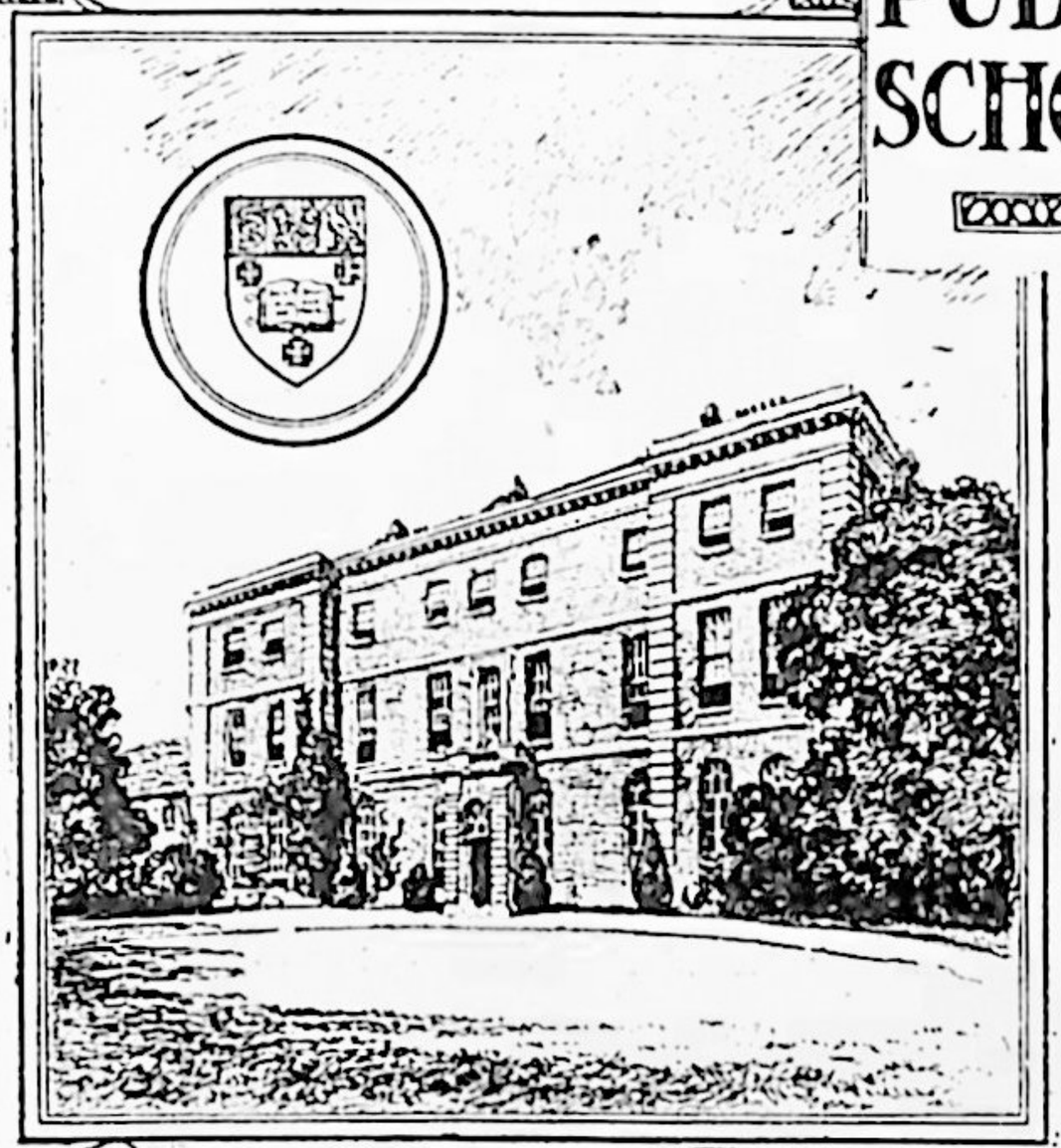
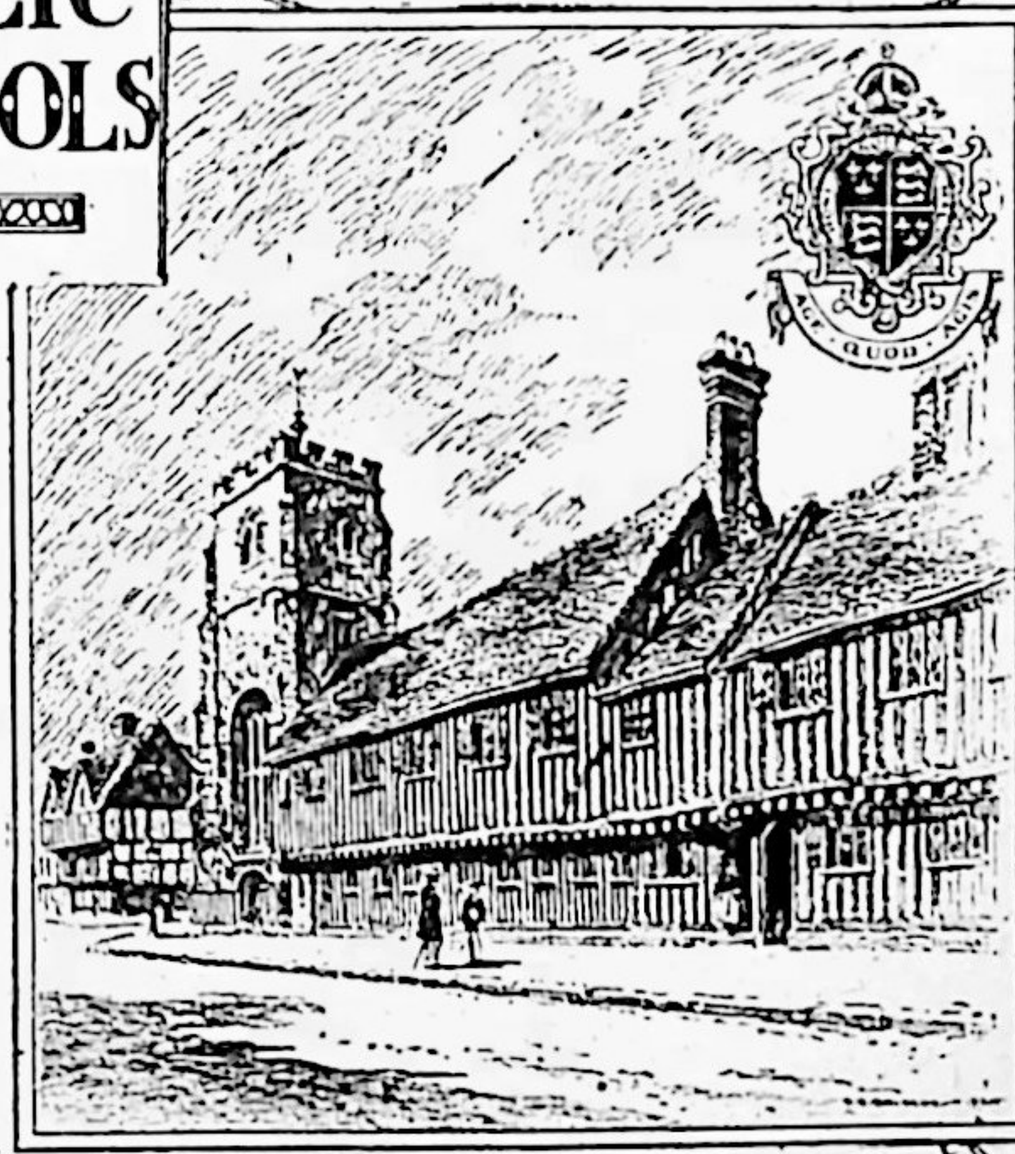


Radley College



King Edward VI. School