Clockwork trains with battery lights by Fred van der Lubbe TCS 1297

Recently I reread the English version by Bruce Coleman of the JEP booklet "The wonderful story of a young engineer (La merveilleuse histoire d'un jeune ingenieur)", which was printed in 12 parts starting in TCS news 104. In part 5 (TCS news 108) is mentioned by Fred (not me, but one of the brothers discussing the virtues of JEP trains) that JEP was unique in the world in having clockwork trains with electrical (battery) headlights. I do have an American made Hafner clockwork train with battery front light which as far as I know is from the same period, so I doubted this statement. I searched a bit and found quite some more makers that made clockwork locomotives with a battery headlight. I limited my information gathering to clockwork steam outline locomotives; there are also clockwork electric outline locomotives, railcars and trams with battery lights and even live steam locomotives with battery headlights; all to be discussed or described maybe later.

To add the feature of an electric headlight to a toy locomotive it is of course necessary to have a headlight with a bulb. Further there must be room for a battery. Some toy train makers choose to use the tender for the battery or batteries, others found room in the locomotive itself. When using the tender wiring was needed between the locomotive and tender; using the clockwork rails or the locomotive tender coupling as ground one wire would be enough. The bulb used is a low voltage one. Batteries used are between 1.5 and 4.5 volt. Some locomotives do have an on/off switch, but in many cases the light is on whenever a battery is inserted.

So, let us take a look around the world for some clockwork locomotives with lighted headlights.

Germany

Looking through reprints of old BING catalogues I found that BING introduced electric light in a clockwork locomotive in 1909 which they called a "Reizende Neuheit" (Lovely novelty), see FIG 1. The battery was a so called "Lagerelement" which before use had to be moistened with water; a "Lagerelement" was a forerunner of later batteries and these elements were also produced by BING. This might be the first or at least one of the first examples of this feature. This was made in Gauge 1 and 0.



I have never seen this locomotive. It is not present in any following BING catalogue I looked at. Some twenty year later the 1931 BING catalogue brought a re-introduction of lighted clockwork locomotives using normal flashlight batteries, FIG 2 shows these in a Dutch catalogue (no reprint). The three different, all Gauge 0, locomotives share the same tender; the tender held the battery.



FIG 2

The clockwork locomotives made by Kraus-Fandor have a colored headlight lens which light up when it catches light (see **Fout! Verwijzingsbron niet gevonden.**); there seem to be also Kraus-Fandor locomotives with a bulb behind this lens and a battery in the tender.



There was a Märklin clockwork locomotive (catalogue number R 900 B) made around 1938 with an electrical headlight; the battery for this had to be carried in an adjoining wagon.

The other German makers seems not to have made locomotives with this feature; there is a clockwork loco made by the Czech firm Husch which has a headlight and a battery in the tender. Husch began in 1930 with the production of tinplate gauge 0 railways with tools acquired from BUB. I have however not found any BUB clockwork locomotive with electrical headlight.

France

As mentioned JEP from France also had some clockwork locomotives with a battery powered light; the one showing in FIG 4 has the battery in the tender (the small switch on the tender top can be seen). This locomotive with catalogue number 4351.LT was made from 1938 until 1951. A newer version in black with catalogue number 4651.LT was made from 1951 until 1955 as part of the Train JEP Luxe No 6 (according to the catalogue: Le plus luxueux de tous les trains mécaniques JEP).



FIG 4

Both sides of the old and torn instruction sheet of the pictured locomotive can be seen in FIG 5. This sheet is bilingual (French/English) so I assume JEP trains were exported to Britain. The battery shown looks like a normal "flat" 4.5 Volt battery, however the battery to be used has special measurement; as far as I know this type of battery was only available in France. One of the type numbers is Philips 3R8P.

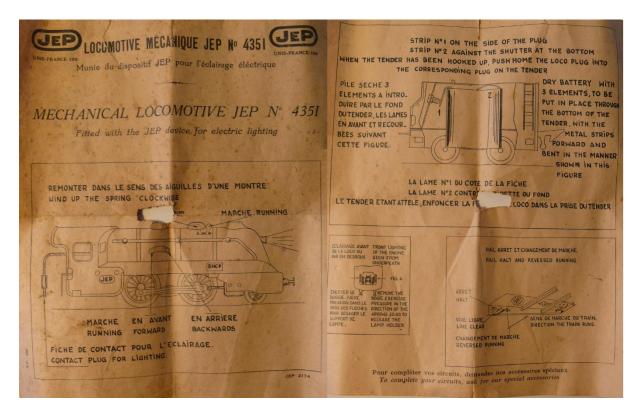


FIG 5

An earlier version of a (non-streamlined) 2-4-0 clockwork locomotive with battery in the tender and headlight was made by JEP from 1935 until 1937. This was a brown Nord version which is rather rare (catalogue number 4366.LT).

The other French makers CR, Hornby and LR seems not to have made locomotives with this feature.

UK

British steam locomotives had headlamps which were used to identify the type of train rather than to illuminate the way ahead, they rarely had headlights. I assume that is the reason that there are few, if any, British clockwork toy locomotives with a headlight. I have not found an example anywhere.

Note: In the British Toy Trains by Michael Foster book 4 on Brimtoy is mentioned that the Brimtoy Monster pull along locomotive was made in a version with battery powered electric lights, however, since that is not a clockwork locomotive it does not count here.

USA

In the USA, where the headlight is a prominent part of a steam locomotive's front, many makers made clockwork locomotives with battery powered headlights. Further, Americans like to add features (Bells and whistles) to everything including their toys; clockwork locomotives exist not only with electric lights but also with bells, whistles and sparklers!

In the prewar American Flyer range there are some clockwork streamliner sets. You can see the electrical bulb at the front of the locomotive of this Minnehaha set (see FIG 6). The battery, a round type C of 1.5 V, is placed in the cab from the bottom. This train was made from 1935-1937.



FIG 6

American Flyer also had cast iron clockwork locomotives with a battery in the tender; an Empire Express set of 1933 has a lighted red cast iron clockwork 0-4-0 engine with tinplate tender holding the battery; the battery required was a type called F4, which is 3 Volts and looks like a double AA type.

This Hafner 1110 engine (see FIG 7) has its headlight on. It is powered by 2 type AA batteries, giving 3 Volts, which are located one after the other lengthwise in the boiler, i.e. just above the clockwork mechanism. This locomotive also has a bell. More Hafner locomotives had lights and most had a bell. When Hafner was sold in 1951 the trains appeared with both the Hafner and Wyandotte and later with the Wyandotte trademark. Some Wyandotte streamlined clockwork trains also has a headlight powered by a type C battery in the nose of the locomotive.



FIG 7

Lionel started making clockwork locomotives based on Ives mechanisms; their range is quite small. Their 1508 loco from 1934/35 had a battery powered headlight. The 1506 "Mickey Mouse with Stoker" was another with a battery for a headlight. These locomotive bodies were based on the Commodore Vanderbilt streamliner and the locomotive held the battery.

The Marx CV (Commodore Vanderbilt) was made in numerous variations. Some prewar Vanderbilts had battery powered headlights were the C type battery was positioned crosswise at the front. Also the later Marx 933 was so equipped.

Of course there might be more, but this is what I found and it proves that JEP was not unique in the world in having clockwork trains with electrical (battery) headlights.

I used information from books and the internet and I used some information gathered during a discussion on the OGR (0 Gauge Railroading)/Tinplate forum for this article. Pictures are made by me from items in my collection.