

The History of Matchbox Production: Part II

[Jones, Ben, "Matchbox Production", Matchbox Cover Design, Dissertation submitted in partial fulfillment of the requirements for the degree of BA in Typography & Graphic Communication, The University of Reading, 2004]

Producing sheet-fed matchboxes involves the same process but with a normal sheet-fed offset litho printing press and separate machines to apply the striking surface and to cut and crease the skillets. The sheet-fed press is mostly used for shorter print runs as it prints at a slower rate to the reel-fed 'Chambon' press and the printing plates are much easier to change. The sheet-fed press also has a superior quality of printing because the high speed of the Chambon press interferes with the registration of the print.

When they are ready, the pre-folded skillets are fed into the outer sleeve folding machine, which applies the glue and folds the skillets around a bar with the same dimensions as the inside of the outer sleeve, at about 1100 per minute. The completed outer sleeves are then automatically conveyed to the continuous match machine where they meet the inner trays that have already been stamped out, formed and glued by a machine at a similar rate to the outer sleeves.

Production problems

The production of matchboxes was not always a straight-forwards process, however, the numerous problems encountered gave rise to solutions that were to drive the development of the matchbox. By 1914, match manufacturing had become a well-established and important industry. However, the onset of the First World War was to have serious consequences for the British and international match industry as it initiated an increasing shortage of raw materials through the reduction of foreign imports, notably timber. This led to national match shortages, intensified in Britain by an outright ban on all imported matches.

The effects of the First World War in Britain were not entirely negative as it was the war that prompted a small innovation in the form of damp proof matchboxes for use by soldiers in the trenches. As the match industry began to return to normal after the war, the issue of the timber shortage was addressed with the establishment of aspen plantations in Scotland in 1920 and again in 1930. However, by 1938 another World War seemed inevitable and companies like Bryant & May in Britain started to accumulate essential supplies and also began looking for ways to save timber and use alternatives.

Early on in the second war, many industries, with a need to conserve raw materials, began the down-scaling of their products. The same was true of the match manufacturers with almost all large, fancy or colorful matchboxes in Britain being withdrawn, mostly never to return. This and the supplies amassed before the war enabled the British match industry to carry on production as normal and even to step up production to account for the loss of imported matches.

This was not the case for all countries during the war and it was via wartime philuminists and the quality of the few international matchboxes they acquired that the condition of an otherwise inaccessible country could be determined. For example, a British label collector received a small amount of matchbox labels smuggled out of Bulgaria. The labels included those produced before the war which were well-printed with colorful designs.

The labels then became monochromatic with plainer designs that included the state insignia and little wording; then the labels appeared on poor quality paper with only the state insignia applied with a rub-

ber stamp; and finally they used only unprinted oddments and scraps of paper.

Another country that faced adverse matchbox manufacturing conditions was Eritrea in North Africa, lacking in many basic raw materials so matchboxes began to be made from Italian picture postcards. The postcards were cut to shape and held together with strips of poor quality paper that had been hand-printed in red or black.

The use of cardboard as a matchbox material was not solely limited to Eritrea during the war. In Holland in the early 1940s the Dutch National Match Factory, due to severe Nazi controls on all industry, began using cardboard instead of wood for the boxes. Also, at around the same time in Britain, the necessity to conserve wood led to the same conclusion which, in turn, inspired the Swedish company Svenska Tändsticks Aktiebolaget (STAB), one of the largest match manufacturers in the world. This proved to be one of the most significant advances in matchbox production.

Wooden boxes were complicated to assemble because the logs of wood had to be 'peeled' (on a lathe) into a veneer, then cut to shape and rebated so that the edges of the box met to form a right-angle. A printed, paper sheath stuck on to the outer box and the inner tray had its sides and bottom stuck together with paper and glue. Cardboard matchboxes have a much higher production rate because they are easier for machines to make and handle. Cardboard boxes have less spillage than wooden boxes and also nullify the need to sort the peeled veneer into that to be made in to boxes and that destined to become splints. All this, coupled with the cheapness of the raw product, greatly reduced the cost of matchbox production.

The benefits of using cardboard as the sole material for making matchboxes were quickly realized and when, after war in 1949, Bryant & May started producing all-cardboard boxes for safety matches, it marked the demise of the wooden matchbox. However, Cardboard was substituted in stages and, in Britain, it was up until the 1970s that wooden boxes were still being made.

It was also during the 1970s that the latest fundamental innovation in matchbox production was realized and involved the implementation of a technique that had been known earlier but not used. This was the printing of the label and strike surface directly onto the outer box instead of making the box first and then applying the label.

This was only possible with cardboard. However, by printing directly onto the box, the quality of the printing could not be as high as printing onto a paper label due to the high speed needed in production. This therefore also marked the demise of the highly ornate matchbox label as it was no longer feasible to maintain the same level of detail on the cardboard boxes as had appeared on the paper labels.

In 1964 a German match manufacturer started making boxes out of plastic but, although it was tried elsewhere, it never caught on.

In the present day, the same amount of matchboxes produced in one minute is slightly more than that produced in an entire working day when the matchbox was first produced, about 150 years ago. However, since the production of that first matchbox in the 1840s, composed of a sliding inner tray and an outer sleeve, the essential construction of a matchbox has not changed at all. Not only does the consistency of this packaging design supply a usefully regular platform for the evaluation of the graphic design of the matchbox covers but it has also provided matchbox cover designers with an extensive precedent for their designs, the value of which may not have been fully realized.