

Twin Pins – Double Trouble or Twice as Nice?

PART 3 - The Rise of Plastic

by Susan Webster

Parts 1 and 2 of this series on circular knitting needles focussed on early brands with a metal cable between the metal knitting pins. These were found in shops in the United Kingdom (UK) and the United States (US) by the early 20th century, with the first patents being issued a little earlier. There are fewer patent references for the various synthetic circular needles, as knitting needles were merely one use of each of the new synthetics.

First, there were rigid plastic circulars in the early 20th century, made from some of the early synthetics.

One material used for these rigid circular knitting needles was celluloid, invented in the mid-19th century. First used to imitate more expensive substances like ivory, celluloid products appeared in late-19th-century workboxes (Fig. 1) under names like ivorine and French Ivory, including straight knitting needles.

Celluloid only became cheap enough for utilitarian items during the first third of the 20th century. Very common products were billiard balls and cinema film. Circular celluloid knitting needles were developed some time after the straights (Fig. 2). Once set into a circular shape, celluloid knitting needles were even more rigid than metal circulars.

In 1933, the Wm. H. Horstmann Company of Philadelphia published a sixty-four-page pattern booklet that included several pages of guides for selecting straight or cir-



Figure 1. French late 19th century workbox with tools in the most current and modish substance, ivorine or French Ivory, including a pair of straight knitting needles.



Figure 3. Page 58 from the 1933 *Columbia Products* booklet, Fall and Winter Styles for Misses and Women.

cular needles to use with their patterns. While Horstmann's needles were not branded, the firm had developed a close relationship with the Boye Needle Company.

Horstmann founded his business around 1815 as a manufacturer of braids, cording, and other products. By the early 20th century, the firm had thirty departments



Figure 2. In the early 20th century, knitting needles were sold in pairs as a premium product. Note the thick diameters of the needles in the first picture, unsuitable for knitting most ladies' garments at the time. The second photo shows examples of the fancy stoppers on the early celluloids, which were often sold through mail-order catalogues.

managing the import, production, and dispatch of various trimmings and haberdashery items, including yarns for both commercial and personal needlework—many of the booklet's patterns specified either or both of the white celluloid circulars or the Boye steel circulars. The firm was happy to show Boye branding on the steel circulars on the comparison graphic shown on Page 58 (Fig. 3), while the celluloid circulars had no branding, but were noted in the text as "Columbia White Celluloid."

Celluloid-based products had a significant drawback — they were highly flammable, as illustrated by widespread cartoons where the cinema projection room catches on fire. This flammability meant celluloid was replaced as early as possible with less dangerous plastics.

Another synthetic used for knitting needles was the milk-based product casein. The first UK brand name was Erinoid, a slightly less rigid material, but still not very flexible. Developed

during World War I, it and other synthetics were in use up until the regulations for hazardous chemical production were tightened in the 1980s (Fig. 4).

Some synthetics had a second drawback in that early chemical compositions occasionally became unstable over time, resulting in crazing, cracking, or disintegration. For an example of a disintegrating “amber” knitting needle, see Figure 13 in my article “Knitting Needle Point Protectors: An American Version” in the September 2022 issue of the Bulletin.

In 1934, the Roosevelt Administration initiated the Tennessee Valley Authority, a depression-fighting make-work project to bring hydroelectricity to this vast midwestern area. One use for this electricity was the production of cellulose acetate, which was not flammable. Cellulose acetate and also casein needles were speedily imprinted with the word “flammable” to reassure knitters of their safety around open fire or candles (Figs. 5 and 6).

A few years after moving away from celluloid, needle makers dropped the word “flammable” from their advertising and concentrated on their brand names (Fig. 7).

In 1939, the DuPont Corporation announced the development of flexible synthetic nylon. An early DuPont product, nylon stockings, used new marketing campaigns to build anticipation before the product was available in stores. When finally available, the first 4,000 pairs of nylon stockings sold out in three hours. However, soon most nylon was diverted to war production, including parachutes and other equipment. After the war, myriads of uses were quickly found.

The Hero Manufacturing Company of Waterford, Connecticut,



Figure 4. Non-celluloid rigid circulars — “amber” on the left and the very popular faux tortoiseshell on the right. These needles could not be used now, as they would break or crumble due to the disintegration of the chemical bonds over time.



Figure 6. Boye’s later casein circulars wearing the new livery in a paper wrapper — a brilliant clean and modern look, but easily torn or tangled during transit and display. The word “non-inflammable” on the label has replaced printing on the needle itself.

and Middleboro, Massachusetts, was the third large US knitting needle manufacturer (competing with Boye and Susan Bates as the “big three”). It first offered circular needles with the metal cable covered with nylon — an innovation matched in the UK by Aero. In 1954, Hero Standard offered its patented Nylo-hoop—a circular with a flexible nylon cable and hardened nylon needle tips (Fig. 8).

Other companies quickly dropped the metal cables, whether coated in plastic or not, and moved to fully nylon cables. Susan Bates used plastic cable for all its major brands, with different types of points as the distinguishing feature (Fig. 9).



Figure 5. Boye double points with the word “non-inflammable” printed on each needle.



Figure 7. The Susan Bates brand name is on a short, rigid circular.



Figure 8. Packaging for the early Hero Standard circulars, with, on the left, the paper packet featuring “NYLON covered metal CABLE” and on the right, the revolutionary Nylo-Hoop, a one-piece needle with even the knitting points made of plastic.

Another knitting needle brand in the 1950s and 1960s was Bernat, founded by Hungarian emigrant
(continued on page 20)

TWIN PINS – DOUBLE TROUBLE OR TWICE AS NICE?

(continued from page 19)

Emile Bernat in Boston in 1902, but moving to Uxbridge, Massachusetts, after World War II. The brand was eventually Canadian-owned and sold needles with both American and Canadian addresses. Bernat was never a needle-maker, and sold its knitting needles as a support to its yarn sales.

Sometime after World War II, the firm partnered with England's Aero brand, following a long tradition of English-made needles being sold in the USA. Figure 10 shows the Bernat packs, the left with a cardboard backing and the right using Aero's well-known plastic pack with red back and clear front. The clear plastic front is overprinted with Bernat's name, a North American needle size, and even the price. The Aero name also appears, but this use of an overprinted Aero clear-and-red pack would have resulted in huge cost savings.

The explosion of consumer marketing and packaging from the 1950s meant many new and established firms began to use branded packaging for their products (Fig. 11). The "traditional" cardboard backing continued. Still, plastic packaging offered less breakage and loss in transit and on the store display rack.

Also, after World War II, a more subtle change in the knitting needle industry — and in many other aspects of the yarn and textiles industry — can be detected. This was industry consolidation. While these articles on circulars do not spend a lot of time on mergers and takeovers, a reduction in brand names can easily be detected. Part 3 of this series mentions only six brand names, in contrast to the thirty or so mentioned in Part 2. By the



Figure 9. Susan Bates' brands of plastic cable with different points — Luxite with extended plastic points, Quicksilver with the standard aluminum points, and Silverado with metal (chromed?) points.



Figure 11. Showing the evolution of circular packaging for Diana, the down-market brand of the Boye Needle Company. Note the advice on the cardboard backing sheet in the middle, which indicates that the bag can be reused for storage. In the right-hand example, the printed cardboard has been moved outside the plastic.

1970s, the manufacturing of simple products, such as needles and haberdashery, was moving overseas or to developing nations in the south. Smaller firms of needle-makers and smaller retail brands were disappearing. In most cases, the larger firms got bigger, and their brand names are still used today, although their owners may have changed.

Nevertheless, from the 1950s to



Figure 10. Two Bernat packs from the 1950s and 1960s, the left pack with a printed cardboard backing sheet inside the plastic that references the old marketing tag "Twin Pin". The right pack is Aero's standard packaging with a red back and a clear plastic front. Here, the clear plastic is overprinted with Bernat's brand name, a North American needle size, and the price, too. Both packs give the Aero tie-in — Aero still proudly proclaiming that their needles are made in England.

the present day, circulars have continued to grow in popularity, surpassing the traditional four double-pointed needles depicted in many earlier illustrations and patterns. Likewise, few changes or innovations have emerged in the packaging of circulars, despite marketers' efforts to differentiate their products and reduce packaging costs.

Variations on the circular needle, such as interchangeable cable lengths and point diameters, have presented the knitter with different opportunities, but we will leave these for a future review.

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Sources

Columbia Products. 1933. *Columbia Book of Fall and Winter Styles for Misses and Women*. Wm. H. Horstman Co. Philadelphia. PA. Page 58. ■