Much of the history of eyeglasses has been gleaned from studies of paintings and prints that illustrate them. A few prints from the first century of printing include spectacles and are reproduced in this article. In addition to showing their form and method of use, these prints also illustrate their symbolic value.

Arch Ophthalmol. 2002;120:1577-1580

In Europe, the use of paper and of xylography (printing from woodcuts) began in the last quarter of the 14th century. Such woodcuts were reproduced by inking the surface on which the images were cut and then transferring the inked image onto a sheet of paper. Before the invention of the printing press, the pressure to do this was exerted by hand. Experts have dated single sheets as early as 1418. One of the earliest books to be illustrated with woodcuts was *Fables* by Ulrich Boner, printed in 1461 by Pfister of Bamberg, Germany. Movable metal type was first used by Gutenberg in about 1450, at about the same time he invented the printing press to apply pressure with the machine. Metal type and woodcut illustrations could be printed together in his screw press, and this method was used to produce many incunables (books printed prior to 1501). The invention of printing is generally assumed to have markedly increased the demand for spectacles but, of interest, there are few contemporary sources to support that hypothesis.2

Spectacles had been invented in Pisa, Italy, around 1285.3 The first known illustration of them occurs in a mural in the chapter house of San Nicolò in Treviso, Italy (1352), and several other murals and oil paintings from the 14th and 15th centuries depict them. In this article, we highlight the known printed illustrations of spectacles produced prior to the year 1501. Some were illustrations in books; others were made as individual prints.

Portraits made during the lifetime of a person were exceedingly rare at this time, and most “portraits” were actually produced by the imagination of the artist rather than being a true likeness of the individual. The same woodblock was often used to print the portrait of different personalities. An example is the first known printed image of spectacles, found in the *Rudimentum Novitiorum* by Lucas Brandis, printed in Lübeck, Germany, in 1475.4 The person depicted was variously identified as Philo, Empedocles, Seneca, or Pythagoras (Catherine Hitchens, BA, e-mail communication, December 18, 2000) (Figure 1).

The Martyrdom of Simon of Trent (Figure 2) was probably produced between 1475 and 1485, but its actual original source is unknown. The scene depicts the ritual murder of the child, Simon, a controversial subject for hundreds of years following the incident. Not surprisingly, Jews were often depicted in a derogatory manner in this time period. This print includes the Jewish ring (rota), part of the special form of Jewish dress in the Middle Ages, but in this instance, a pig has been added inside it. Exaggerated “Jewish” facial features also are shown. The spectacles possibly are symbolic of a false sense of knowledge.5

In *Totentanz* (1488), printed in Heidelberg, Germany (Figure 3), the physician examining a flask of urine is employing spectacles. Whether these are symbolic of his erudition, a caricature of false knowledge, or just a humorous touch can only be speculated.

*La Mer des Histoires* (Figure 4), printed in Paris, France, in 1488 or 1489 by Pierre le Rouge, shows a scholar wearing spectacles standing at his desk.

*Death of the Virgin*, by Martin Schongauer (1491) (Figure 5) shows a scene popular in medieval and Renaissance art: one of the mourners employing eyeglasses to aid his reading.

The *Liber Chronicarum* by Hartmann Schedel, 1493 (published by Anton Koberger, Nürnberg, Germany), uses the same bespectacled woodcut (Figure 6) for at least the following persons: Jacob, Julius Africanus, Antisthenes, and Rasis medicus (Rhazes).

Sebastian Brant produced *Narrenschiff* (Ship of Fools) in Basel, Switzerland, in 1494. One of the illustrations shows a bibliomaniac (Figure 7) as one of the fools. A pirated version of the *Liber Chronicarum* was published in Augsburg, Germany, by Johann Schöpf in 1497. It has at least 2 woodcuts with spectacles. The first (Figure 8) is variously identified as Laurentius, John Wycliffe, Linca der bischoff Zarara, or Quidius Naso. The second (Figure 9) shows Petrus de Bellaparrita. The same publisher produced the *Buch der Cirurgia* by Hieronymus Brunschwig in 1497. This contains a figure observing a surgical operation with the aid of eyeglasses (Figure 10).

Finally, the print of *St Mattias and St Judas Thaddaeus* by Israel van Mechenem from 1497 shows the bespectacled saint reading his book (Figure 11).

Although concave lenses to correct myopia were available in the late 15th century, it was much more common for glasses to be used for reading. Presumably all literate presbyopes, as well as many illiterate ones, would have benefited from them. All of these illustrations show them being used for close work except, perhaps, for Figure 10. The earliest spectacles comprised 2 separate lenses and frames, held together by a rivet. The earliest illustration of a solid bridge is found in the painting, *The Madonna With Canon van der Paele*, by Jan van Eyck (1436). These 15th-century printed illustrations show both types of bridge. The rivet spectacle is particularly clear in Figure 3 and the solid bridge in Figure 11. Artists were prone to place spectacles on subjects who had died long before the invention of eyeglasses. Such anachronisms can be seen in Figures 1, 5, 6, 8, 9, and 11. Both Biblical subjects (Figure 5 and Figure 11) as well as historical personages (Figures 1, 6, 8, and 9) were
shown with glasses. Artists often used spectacles symbolically. In most of these portraits, they were probably used to connote erudition (Figures 1, 3-6, and 8-11), but they could also be used to imply foolishness (Figure 7), false knowledge (Figure 2), or to demonize an enemy (Figure 2).
Other contemporary meanings for the spectacles are certainly possible, and any interpretations done centuries after the fact are conjectural.

Over the ensuing centuries, illustrations of eyeglasses became more common, both in paintings and prints; however, their use by the artists continued to follow the symbolism begun in the first 5 decades of printing, as described in this article. The study of early prints and paintings depicting glasses, especially if they can be dated accurately, is useful in understanding the evolution of spectacle frames and, occasionally, the lenses (eg, colored or whether used for distance or near purposes). Their anachronistic and symbolic uses can be a window to the thinking of both the artists and their contemporary viewers.

Submitted for publication March 8, 2002; final revision received June 25, 2002; accepted July 10, 2002.

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