

PHOTO GEORGE EASTMAN HOUSE



Dagron's microphotographic camera was a vital part of the technology involved in producing picture bows. Introduced in 1860, it created photographic images of 2mm by 2mm, and was probably used to make the tiny portraits of Vuillaume

LIFE THROUGH A LENS

A faded image of Vuillaume – from the folds of the tablecloth to the shine on his shoes – provides vital clues in tracing the history of one of the most popular musical novelties ever, the picture bow. PHILIP J. KASS turns detective

At an exhibition in Paris in August 1859 a stick of polished glass started a sensation that was to continue for over a hundred years. The glass was polished at one end and flat at the other, and at this end a tiny microphotograph was fixed. These pieces were small and cheap, and rapidly appeared as ornaments in all manner of objects. Eventually the violin maker Jean-Baptiste Vuillaume recognised

was patented by the French photographer René-Prudent Dagron in 1859 (see box on page 53). In 1862, in order to fend off competition, he went public with his method, offering for sale his services and the equipment required to make the bows, and for the next eight years microphotographs became extremely popular. At this point Vuillaume, ever the entrepreneur, had the idea of inserting a Stanho-scope through the pearl eyes of bows, as the average frog was just the right size.

But there are still questions. Who made the microphotographs? When? And who made the bows that carry them? Let us consider each of these in turn.

THE MICROPHOTOGRAPHS

We can only speculate as to whether Vuillaume dealt directly with Dagron in acquiring his Stanho-scopes; the facts are inconclusive. During the early 1840s, before he became interested in photography, Dagron lived at 21 Rue Croix des Petits Champs, just down the street from Vuillaume, so the two might have come

they more often feature one of two portraits of the maker himself, either standing or sitting. The picture of him standing looks like the c.1860 Moulin one, except it isn't: the pose and the photographer's angle are slightly different. Everything else — the outfit, the chair, the folds of the tablecloth, the wall mouldings, the reflections on his shoes — suggest that these pictures were taken on the same day, by the same photographer.

It is likely that Moulin had one of Dagron's cameras, which he would have used to create the Stanho-scopes for Vuillaume. His photograph is mounted on a card of 8cm by 10cm, the size of the classic *carte de visite*, the popular and inexpensive photo that doubled as a business card. To make these, a series of negatives would be produced on glass at a photo shoot, the client would choose their favourite exposures and these would be printed on sensitised paper. Dagron's black-box camera, for sale from 1864, could photograph glass negatives to create the positive image in a microphotograph. So, if Moulin had one

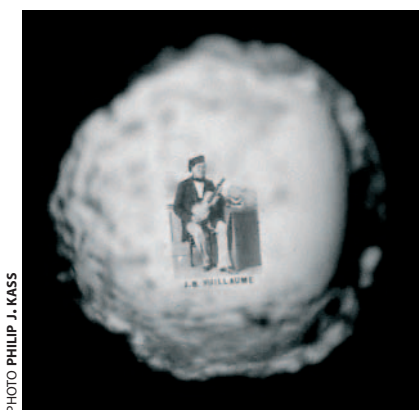


PHOTO PHILIP J. KASS

Vuillaume's picture bows often feature one of two images of him: sitting (above) or standing (below)



PHOTO PHILIP J. KASS

If you look at the middle of the pearl eye in each nut you will see a little lens, through which you can see Paganini, Tourte and Stradivari. It's a little joke which causes much amusement

J.B. VUILLAUME

another possibility for them, and thus was born one of the great musical instrument novelties — the picture bow.

This term describes bows, mostly from the Vuillaume workshop, that have microphotographs — microscopic photos of life-size images — inserted in the frogs. While they are fascinating novelties, they also use a technology that can help to date the bows that carry them.

Microphotographs mounted on tiny lenses are known as Stanhopes, or Stanho-scopes, after the Earl of Stanhope, a British inventor. The technique that made possible the insertion of microphotographs into bows

across each other. But Dagron was far from alone in this profession, having taught dozens of others his method, and Vuillaume could have used any photographer with the necessary equipment and training.

The photographer was probably Moulin. There is a picture of Vuillaume, in a private collection, which was shown in the 1998 Vuillaume exhibition at Paris's Musée de la Musique, taken by Moulin and dated c.1860, in which Vuillaume stands with an unfinished violin in hand and a table full of parts. While some of Vuillaume's picture bows hold pictures of Paganini, Tourte, Stradivari or Sarasate,

of Dagron's cameras, it would have been easy for him to mount his *carte de visite* negative plates into the camera, take the microphotographs and produce the finished Stanho-scopes of Vuillaume.

DATING

The issue of dating also requires some speculation. If we knew exactly when the original photographs were taken, we could define the earliest date for the Vuillaume bows. We can comfortably say that the session occurred between 1860 and 1865 and while the microphotographs could have been made in 1859, it is more >

likely to have been after 1862, when the technology became more readily available. So, how old was Vuillaume at the time of the photographs? I suspect that the photos were taken when he was about 65, thus dating the portrait session, and the Stanho-scopes, to 1863.

Vuillaume's correspondence reveals few answers. The earliest letter known to me with reference to picture bows dates from 1866. Vuillaume wrote it to a M. Henry of Geneva. A portion of that letter is reprinted in the Roger Millant book on Vuillaume:

The bows are doing very badly. Sebastien still hasn't found a workman. We are going from bad to worse

J.B. VUILLAUME

'I have carefully selected three bows for you of the type that you want and you will be more than satisfied with them. There is a small surprise for you, at no extra charge. If you look at the middle of the pearl eye in each nut you will see a little lens, through which you can see Paganini, Tourte and Stradivari. It's a little joke which causes much amusement.'

It is safe to assert that the picture bows were not made after 1870. The Franco-Prussian War of that year ended in French defeat, the fall of the Emperor and the long and protracted Siege of Paris, which went on well into 1871. Commerce in instruments virtually ceased at this time and it appears to have been slow to recover. In a letter of 8 February 1875, written to his younger brother Nicolas François and reprinted in the catalogue of the Musée de la Musique exhibition, Vuillaume wrote the following: 'The bows are doing very badly. Sebastien still hasn't found a workman. We are going from bad to worse. I have a beast here who's good

STANHO-SCOPE TECHNOLOGY

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THE STANHO-SCOPE WAS THE RESULT OF AN ingenious combination of technologies, mostly developed in the UK over a period of 70 years. The first was the Stanhope Lens, a magnifier designed in the 1780s by the Earl of Stanhope. The application of the Stanhope to photography was not immediate, though. The first photographs – positive images produced on metal plates – weren't made until the 1840s, and these were non-reproducible.

Frederick Archer's invention of the 'wet collodion' process in 1852 changed all this. When treated with silver nitrate, wet collodion, a resin, becomes photosensitive and retains an image if treated with fixative chemicals. The image produced is a negative and when created on a glass plate can be reproduced on treated paper.

Collodion has other advantages: it forms a coating measurable in microns, with virtually no grain, so that the resulting microphotographs are sharp and clear. J.B. Dancer, an English photographer, used the technique to create images on microscope slides, but they were difficult to view without a microscope. Some sort of portable viewing system was required before this method could become practical.

The man who put it all together, René-Prudent Dagrón, was a vendor of novelties and a self-taught jeweller and photographer. He had seen some of Dancer's slides when the British scientist David Brewster visited Paris in 1857. Brewster suggested creating jewellery mounted with polished gemstones that acted as image viewers.

Dagrón developed a way of creating images on collodion, in quantity, using a permanently attached Stanhope lens as a magnifier. These he called Stanho-scopes. By June 1859, Dagrón's shop was already selling them, mounted in jewellery and curios; after their display at the Paris Exposition that August, they created a sensation. By 1862 he had over 150 employees, making 12,000 a day.

Because Brewster had suggested a similar system, the patent was immediately challenged and in 1862 was revoked. Dagrón's idea, however, was truly original. While most Stanhope lenses of the time were rounded at both ends, Dagrón conceived of a fixed-focal-length magnifying rod, rounded at one end and flat at the other, which would be permanently mounted on a microphotograph. This innovation made it possible to mount them inside anything, including violin bow frogs.

Dagrón's response to the loss of his patent was brilliant: he flooded the market and made his name synonymous with Stanho-scopes. He created a special camera for making the images, which he sold. By the end of 1863 he had published an instruction manual, giving all the information one needed to know.

It is no surprise that by 1864 there were at least seven photographers who advertised the making of Stanhopes, nor that by 1866 microphoto novelties were widespread.

The Earl of Stanhope: inventor

enough to throw out of the door.' From these remarks, it seems that Vuillaume did not have the staff to create the picture bows, and whatever stock he did have probably dated from before 1870.

WHO MADE THE BOWS?

It used to be thought that Pierre Simon made these bows in the 1840s. Clearly, this is technologically impossible, although he is not entirely ruled out as the maker

of some of them. He had returned to Mirecourt around 1861, after the break-up of his partnership with Joseph Henry, so he was not in the Vuillaume workshop when the bows were being made. However, he was still supplying some bows to Vuillaume by mail order, as he did for the Gand brothers, and after 1866 for the Gand and Bernardel brothers. These must have been supplied by post. They could quite possibly have been fitted with ▶

Stanho-scopes once delivered to the workshop. Yet I do not believe that Vuillaume would have expended energy on 'used goods' to retro-fit Simons with pictures; it does not seem his style.

Until recently Simon received the credit for much of the early work of François Nicolas Voirin, and I believe that it was actually Voirin who was the key bow maker in the entire process. He worked for Vuillaume between 1855 and 1870, and was the workshop's supreme craftsman during these years. This and the likelihood that whoever made the picture bows would have had to be in-house indicate that Voirin made these bows. Vuillaume even acknowledged Voirin as the maker of the bows submitted to the Paris Exposition of 1867, some of which may have been picture bows.

After Voirin, the most important maker to create picture bows was Charles Peccatte. As an apprentice of Voirin from 1865 to 1869 he could easily have made bows that were deemed of sufficient quality to warrant a picture. His work fits nicely into the period in which these bows were probably made.

Curiously, no other significant Parisian dealers or bow makers are associated with picture bows. This is partly due to the long shadow of Vuillaume, but it may also reflect the fact that the Stanho-scopes arose in part from the overlap of microphotography and the *carte de visite*. By the post-war period the *carte de visite* was falling out of fashion and the popularity of microphotographs had peaked. Microphotographs added expense, but not necessarily profit, so they may have been considered an unnecessary frill. By the early 1890s most of the Dagrón operations moved to Gex, near the Swiss border, and the creation of picture bows was probably conducted by mail order. The Gex workshop closed only in 1972.

The only other French maker associated with picture bows was working in Lille: Pierre Joseph Hel. He was born in 1842 and apprenticed in Paris in the early 1860s under Sébastien Vuillaume. At his death in 1902, his son Pierre took over and continued the business until 1937. All the Hel picture bows that I have seen were made for the son Pierre Hel and were stamped as such; these are the work of Charles Nicolas Bazin. They all

have the same picture of Joseph Hel seated at his bench, in his 50s or 60s, indicating that the photograph was taken during the 1890s. We do not know the photographer or the source of the microphotographs. It is equally plausible that they were produced in Lille, or that they were made in the factory in Gex and shipped to Lille.

The only other school of bow makers to use Stanho-scopes in their bows was the German, specifically the Nürnberger and Schuster families and Otto Hoyer. Their inspiration, of course, was Jean-Baptiste Vuillaume. In spite of German pre-eminence in photo

technology, they all appeared to have acquired their Stanho-scopes from France; the Dagrón workshop was their probable source.

In the last decade, what had seemed to be a lost craft has revived and bow makers are again beginning to put Stanho-scopes into their bow frogs. With tortoiseshell and ivory on the prohibited list and even pernambuco in short supply, new methods need to be found to distinguish quality levels in a maker's body of work. They could be used to show off a bow maker, or even the owner of the bow. That would still any disputes of ownership once and for all. ■



PHOTOS PHILIP J. KASS

François Nicolas Voirin made this viola bow: he was probably the key maker in the entire picture bow process



A Charles Peccatte violin bow from c.1865: after Voirin, he was the most important maker to produce picture bows