

## THE WATCH CRYSTAL.

CHANGES SINCE THE DAYS OF GRANDFATHER'S BULL'S EYE.  
Their Manufacture in the United States, a Dollar Apiece to a Doller's Gross.

"Ah, then goes another crystal?"  
"We don't yet have a hunting case?"  
"Because I prefer to open face, even if they are more expensive."

The conversation was overheard by the other two gentlemen who were playing cards in a Tremont street hotel.

How sharp the writer is, a subject of interest to readers, and straightforward in the rooms of one of the oldest, if not the oldest, dealers in watch crystals in the country. He was found on Court street, in one flight, in a room which was a veritable curiosity shop.

On one side of the room was a line of grandfather clocks whose voices had not been heard for half a century. The dust lay in ridges, and their old yellow faces looked sombre and sad. Some were without hands, while others were in cases warped and bowed.

"I am the proprietor of this establishment," said the newspaper owner. "One of the best figures arose from his bench in recent years. A snow white beard down-skinned his chin, and a pair of steel framed spectacles rested on the tip of his nose."

"Lending this shop," said he, "What is wanted?"

"Trance to ask you a few questions relating to watch crystals," responded the scribe.

"Oh yes. Well, you will find me pretty well acquainted with the business."

"What style of crystal was sold in 1854, about the days when you first went into business?"

The principal one was the Luminette. Both open faced and hunting cases. The watches were known as bull's eyes. Luminette was invented by a French man of that name, and he was the manufacturer of the whole watch wearing world. His son, Mr. Luminette, is still a customer of his. Those old fashioned times had delicate cases and when your grandfather performed the important duty of winding his old pocket, just as this was, was sinking in the wrist, he would remove the outer covering, hang it on his thumb, adjust the key, and the suddenly and slowly tighten the spring for the next twenty-four hours service. The crystals of the bulls eye had to be very high in the center because the post to which the hands were adjusted stood up nearly a quarter of an inch."

"Will you give me the process of manufacturing?"

"With pleasure. It should be understood, in the first place, that the finest quality of glass is necessary, and, in order to make the business profitable, the factory must be located sufficiently to a rich bed of sand or galvanized clay. I am now working more particularly of the present time. The glass is taken from the ovens in the form pipe, and a large globe, the end of a half barrel, formed."

When this is taken by the operator with a heated piece of iron, he cuts a circle around the globe, and, when cooled, it becomes a disk. This undergoes a series of temperature changes to glass to appear which the heated metal has been in contact. This is continued until the entire glass has been made into loops or rings. These are then cut into squares, the size of the crystal it is designed to protect.

The process is to place these squares on a wheel covered with buckskin, which is then revolved under a stationary rod, in the shape of a diamond. This operation produces the disk. These are then placed on blocks of soapstone, with combs and passed into a little oven at a slow heat, where they remain about a minute. This gives the glass a set, and then it is removed from the soapstone and passed into the mold. The crystals are ready for the grinder, who, when thrown into water, causes them to sink to the bottom.

Here are the various styles of crystals:

"At the moment, the Geneva, which is an open faced and quite thin. Then the grand seconde in the same form, but much smaller, placed in the center. The Geneva is high crowned, also with a plain border. Then there is the thick Geneva, 12 ft. on top and very flat. They have been made for about two years. They are then cut into squares, the size of the crystal it is designed to protect."

When the Geneva is cut, the edges are ground down to a smooth, even surface. The corners are rounded, and a great deal of care is taken to make them look good.

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