MAKING BILLIARD BALLS

DIFFICULTY IN GETTING GOOD ONES AND THE COST.

A SIMPLE BUT VERY SKILLFUL PROCESS—COMPOSITION BALLS AND THE DATE OF THEIR PERFECTION.

In an article in an English journal on the ivory trade, it was promised that something would be said on the making of billiard balls. The journal in question, the *Pall Mall Gazette*, has interviewed a gentleman in the trade, James Burroughes. Mr. Burroughes was not literally sitting on "a mountain of billiard balls" as he is represented in one of the firm's photographs, but he "might appropriately speak from such a pedestal, for he has made himself master of every branch of the subject. The photograph shows the process of seasoning the firm's stock of balls, numbering no less than 20,000, and valued at £16,000. The average number out from the tusks of an elephant is ten—five from each tusk—so that this stock represents the produce of no fewer than 2,000 elephants."

"We turn out," said Mr. Burroughes, "from ten to twelve thousand balls a year, and to do that we must keep a very large stock in order that they may be thoroughly seasoned. Why they require to be seasoned is that ivory is a gelatinous substance and requires to be dried. We take a great deal of pains in this process. A ball never shrinks at the end grain, that is to say, in the way the tooth grows, but always in the diameter. After it has been roughed out, we keep it for two or three years.

"Two sizes of billiard balls are made—one for the Continental and American markets and one for the English. The former measures 2¼ inches to 2½ inches. Immense quantities of these are manufactured in England and shipped to both continents. The size most in use in England is 2 1-16 inches, which is the match size as used by Roberts, but 2⅛ inches is also made. No other sizes can be used on an English billiard table, as the cushions are only built for that height of ball. The American game is based on the French and the tables are the same size. Cannon is the usual game. On the Continent they don't use pocket tables, but in America they have what they call a pool table, which has six pockets. Russia, as distinguished from the rest of the Continent, has the same size of table as the English—12 feet by 6 feet, but the cushions are higher to suit the larger balls. I have played billiards in Russia, and for the matter of that in almost every part of the world, but I must say that the Russians play what appears to us a very childish game. They push the ball direct into the pocket, and appear to have no idea of our scientific methods. All the English-speaking peoples, excepting the Americans, use the English-sized table and English-sized ball.

"The size of tusks out of which balls are turned are called scrivelloes. You cannot make a satisfactory ball out of a tusk that is over a certain size, because if you turn a 2 1-16 out of a tooth that measures 2¼ or 2⅜ you will remove too much of the outside skin or hard surface of the tusk. The nearer you have the tusk to the size of the ball the better surface you obtain. We consequently select different sizes for the English and Continental balls.

"The process of manufacture is very simple, but it requires great skill. The block of ivory is placed in an iron chuck, and one-half of the ball is turned. The ring that is taken off is, in the case of the smaller size, used as a coupling ring for a pair of horses, and in that of the larger is sent to India as a native bangle."

Exhibiting one of these half-turned balls, Mr. Burroughes pointed to an iron pellet which had been disclosed imbedded in the ivory. It had gone almost through the tusk, and in the course of time the hole had been filled up.

"After the second half has been turned it is hung up for a few months with its fellows in a net to dry. No artificial heat is used. They are kept free from any draught of air, as ivory cracks when exposed either to a hot or cold current. When considered thoroughly seasoned they are most skillfully turned by men who have been taught this process for years, and it is certainly one of the most wonderful pieces of handicraft there is. There are thousands of turners in the kingdom, but not one in a hundred will turn a billiard ball so as to produce a perfect sphere. Each one is carefully tested to insure accuracy. But, besides the size, the weight must also be exact, for this is essential to the correct playing of the game of billiards. A set of match balls weighs fourteen ounces. Balls of the same tooth will vary very considerably, and so there must be a careful selection. The polishing is the final operation, and that is done simply by whitening and water, with a good deal of elbow grease. A ball always reretains its beautiful polish.

"We have lately discovered a process for hardening the surface of balls, called by us 'etiolating and annealing.' The first set subjected to the process are at present being used by Roberts at the Egyptian Hall. He has played 12,000 up with one set, and they are as good now as they were at the time of starting. I consider this a wonderful invention. We cannot patent it, but, of course, we keep the process secret. It is effected by chemical means which does not destroy the nature of the ivory.

"The life of a ball is very various. A ball will not remain perfectly true, however much it is seasoned, because of the continual concussion, which causes the cells of the ivory to close up. If a ball is very much played with, especially in a heated room, immediately it is turned, it is very liable to crack and become untrue. I have known a ball to run untrue in a match of a thousand up. They can of course be readjusted, and in the billiard-ball department that is one of the principal branches of our business. We never take off more than one-twentieth of an inch, unless the balls are very bad. They would be of no use for a match after readjustment, but for ordinary play they are quite as good, perhaps even better, because they have been consolidated. We have to study the bias of a ball. If the core does not run straight through the ball, because of being cut out of a circular tooth, it always runs untrue. The core should run straight through it.

"Only an expert would know a good ball. I have had over thirty-five years' experience, and my father gave me a practical knowledge at the bench, so that I can turn a ball myself. It is not surprising, therefore, that I should know a good ball at once, but a billiard player must trust to the manufacturer.

"'As to the price, that depends on the quality of the ivory, its density, and the straightness of the core, besides the perfection of shape, color, and weight. In making balls for a match we will turn 300 and not be able to pick out more than four perfect sets. That accounts for the seemingly extravagant price which is charged for perfect billiard balls. They are the choicest of the choice. The rise in the price of ivory at the last three or four sales has sent up the price of balls to 4 guineas a set. That is a big price to what was once charged. We have been fifty-three years here, and forty years ago we sold billiard balls at 18s. a set, equal to those for which we now charge 4 guineas. You can't buy a billiard ball block in the rough now under 14s. to 15s., that is for the best. Then the manufacturer has to make his selection, for balls crack in turning and drying.

"As to composition balls, they have been making them for over twenty years, and very largely of late, and yet they cannot supersede ivory. The composition ball is made of two substances, and as the inner dries slower than the outer, it chips and cracks. No billiard player will use composition balls as long as he can afford ivory, at whatever price. Of course composition balls will be used by people who don't care to pay the price of ivory, but billiards is quite another game when composition balls are used, the angles at which the balls go off being so different. No doubt the day will come when people will have to use composition, because there will be no ivory. I don't think that will happen in my time. I should say fifty years hence..

"Decidedly billiards is more popular than ever it was. Every man who can afford it has a table in his town house, and his next move is to put one in his country house too. New billiard table makers are springing up every day. When we began there were only two makers in London. Now there are sixty-four. We have branches in India and the colonies, and have just arranged to begin manufacturing in Sydney on a larger scale. All our balls are turned in London, and we employ regularly eight ivory turners."

A special meeting of the Board of Trustees of the Normal College of the city of New-York will be held at the hall of the Board of Education, 146 Grand-street, next Wednesday, at 3:45 P. M.

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