

fame's ladder to its highest round, and did it in this way, under less auspicious circumstances than at present surrounds you. Why cannot you do it? Who says, I will?

NOTES OF SOME EXPERIMENTS IN VULCANIZING INDIAN RUBBER.

Written for the Ontario Dental Society, June 8th, 1870.

In all the range of mechanical and industrial arts, there is, perhaps, no one article which has been made available for so many and so multiform uses as Caoutchouc, or Indian Rubber.

Fifty years ago it was imported from the East Indies, solely for the manufacture of pencil erasers.

Since then human ingenuity has made it subservient to our necessities, comfort and luxury in a thousand different ways. The uses and importance of indian rubber have been very greatly increased by the discovery of Charles Goodyear, that, when india rubber and sulphur were mixed in certain proportions and the compound submitted for a considerable time to a high temperature a product was the result which was hard yet elastic, dense yet flexible, and for all practicable purposes insoluble. The name given to this compound is vulcanized rubber.

These valuable properties brought the vulcanite immediately into the notice of manufacturers of various classes of goods, and during Goodyear's lifetime it had been employed in the manufacture of more than 500 distinct articles, protected by 62 patents, obtained from the American, English and French Governments.

About twelve years ago it was proposed to substitute vulcanized rubber for silver and gold as a base for artificial teeth. The compound then introduced was said to be composed of about four parts of rubber, three parts red sulphuret of mercury and two parts flowers of sulphur. This was directed to be subjected to a temperature of 320° for a period of from four to five hours.

This, when properly manipulated, produced a material more perfectly suited to the wants of the mechanical dentist than any preparation of rubber which has since been introduced.

Whether the compound was essentially different from that now in use, or whether the cumbrous, complicated and expensive apparatus then used for vulcanizing, requiring a much longer time for completing the hardening process, was better suited for the manufacture of a strong article, the fact, I think, will scarcely be