strength I secured the end of each in a small vice and broke them with an ordinary spring balance, applying the pressure as nearly as possible at right angles to the piece, and carefully noted the number of pounds force at which each broke. This register was as follows:—

Boston Star.....	1st series	20 lbs	2nd do.	18 lbs.	
Hard Rubber Co.	1st do.	20 "	2nd do.	16 "	
Johnson & Lund.	1st do.	18 "	2nd do.	8 "	
English Red.....	1st do.	14 "	2nd do.	16 "	
C. Ash & Son..	1st series	14 lbs	2nd do	9 lbs.	
Black.....	1st do.	10 "	2nd do	12 "	
Chittenden....	1st do.	7½ "	2nd do	5½ "	
Pink	1st do.	5 "	2nd do	6 "	

White 1st series 5 lbs. 2nd do. 5 lbs.

The Boston Star and Hard Rubber Co., broke with a fibrous fracture, indicating toughness, strength and flexibility.

Johnson & Lund's exhibit the same characteristics but in a somewhat less degree, especially the sample vulcanized at the higher temperature. The English Red and C. Ash & Son's are of about equal strength though much inferior to the former. The "Black" bent and cracked at 12 lbs. indicating a lack of rigidity and elasticity, when vulcanized at ordinary temperatures. Mr. Chittenden's sample, though supposed to be something extra costing $10 per pound, proves to be inferior, the strongest sample breaking at 7½ lbs.

The White and Pink break with a clear crystaline fracture at about 5 lbs., showing them to be quite worthless for making dental plates.

In color Johnson & Lund's to my mind is the most pleasing, though not by any means of a gum color. Boston Star and Hard Rubber Co. are a shade darker though of the same bright color. English Red and C. Ash & Son's are very much alike, of a dark brown shade. Pink is perhaps the nearest the color of the healthy gum. All the samples of red rubber tested are capable of a good polish. Examined through a powerful magnifying glass the Pink and White exhibit a large proportion of earthy matter which appears to be very badly mixed. The bright colored samples, Johnson & Lund's, Hard Rubber Co., and Boston Star appear to be almost perfectly homogeneous, Johnson and Lund's the more dense, Boston Star the more porous. English Red and C. Ash & Son's are very evenly mixed, of fine materials, very dense, and probably capable of a higher polish, but not equal to the red samples in strength. The Black would seem from its toughness to be well adapted for clasps, but does not vulcanize thoroughly at the heat required for red. In the sample tested the sulphur does not seem to be perfectly mixed with the rubber, leaving small