

(editor's note: This paper was transcribed from a handwritten cursive copy with various difficulties. For a perfect rendition, the reader might wish to consult the original, itself a copy, in the volume entitled *Literary Club Papers I*, 1885 – 1886 Oct 3, '85 to May 29, '86) The original is very badly faded.

Budget, Ferris Editor
May 29th 1886

The Coming Change Of Gauge Of the Southern Railroad

Not very far from Newcastle, in Durham England, on the 27th of September 1825, a train composed of 38 vehicles 28 of which were filled with passengers, and the balance with coal and flour, were drawn by an engine from Brusselton incline to Stockton on the Stockton and Darlington Railroad, a distance of 20 3/4 miles. The first section from Brussleton to Darlington, a distance of nearly 9 miles, was made in 65 minutes, and the second section of 12 miles with numerous stoppages, was made in 3 hours and 7 minutes. An enthusiastic passenger wrote of this performance: "the signal being given, the engine started off with this immense train of carriages, and such was its velocity that in some parts the speed was frequently 12 miles an hour." The weight of the train was 90 tons, equal to that of about 3 modern loaded freight cars.

Disregarding all questions concerning the evolution of the locomotive and the railroad, the passage of this train was a remarkable one, for it celebrated the opening of the first built of the modern railways of the world. As before stated, the length of that railroad was 20 3/4 miles, that was 60 years ago. To-day the mileage of Europe and North America amounts to about 245,000 miles, of which there are in the United States 125,000 miles, the estimated cost of which latter, considering share-capital and bonded debt, is over \$7,700,000,000 .00.

The gauge of the first railway was 4 ft 8 1/2 inches. The common impression seems to be that this dimension was made to correspond with that of ordinary vehicles, but if so, why make it 4 ft. 8 1/2 inches? Why not 4 ft. 8 inches, or 4 ft 9 inches? Why quibble about half an inch? The fact is that it was really intended to have the gauge of the track an even 4 ft. 8 inches but the building of the locomotive preceded the construction of the track, and when a short section of the latter was laid, and the trial run of the locomotive was had, it was found that the engine did not move freely, but lost power by reason of the friction of the flanges of the wheels on the rails, as both the locomotive in the first short section of the track were built on the same gauge of 4 ft. 8 inches. The experience of the present day requires the wheel gauge to be from 1/2 to 3/4 of an inch less than that of the track.

George Stephenson the builder of this first railroad and locomotive perceiving the

difficulty, concluded that the only remedy was to separate the rails one half inch, and so the gauge of the Stockton and Darlington Railway became 4 ft. 8 1/2 inches. From this incident what we call the standard gauge spread throughout England, and as we by inheritance have derived most of our laws and customs, good or bad, from that country, so also have we received the standard gauge of our railroads from the same source.

In the year 1828 an engine was imported from England, called the "Stour Bridge Lion," built by the same persons who built the engine for the Stockton and Darlington railway. It was of the same gauge as the engine of that road, and therefore required the same width of track. In the year 1829 it made its first trial trip on the Honesdale Branch railroad, built by the Delaware and Hudson Canal Company. Immediately after the building of the little railroad in Pennsylvania, "The Southern Carolina Railroad" running from Charleston, was started. By the advice of its chief engineer the directors decided to make the gauge 5 feet. The locomotive was built in this country.

From the trunks of these two trees, if we may so call the two rival gauges, spring the greater part of the 125,000 miles of railroad in the United States. The North being more progressive in these enterprises soon out stripped the South in weaving a net-work of railroads, so that we find until recently that the 5 foot gauge was confined to the country lying east of the Mississippi and South of Mason and Dixon's line. There were spasmodic efforts made to introduce various other gauges. At one time there was a paper war known as "The Battle of the Gauges." We find that during this war our own Ohio and Mississippi railroad, as also the Erie and other railroads were made six feet. Other gauges were attempted, one in the South being as great as 7 feet. The state of Ohio was at one time a great battle-ground in the war of the gauges, but it was at last settled that for the North the 4 ft. 8 1/2 inch gauge was the winner, and the 5 feet gauge triumphant for the Southern states. Very broad gauges were bro't down to the narrower standard, by such radical change as is not contemplated for the South. Gauges which more nearly approached the standard were left as they were. New roads were built connecting railroads of different gauges, by what is called the "compromise," so that compromise cars might run over connecting lines. Gradually compromise was made upon compromise, until we now find but two gauges in the North one of 4 ft. 8 1/2 inches, and the other of 4 ft. 9 inches.

I leave up to question entirely of the modern 3 feet narrow gauge, as being a separate railway system which makes no pretension at present to widen to the standard gauge. Many of these narrow gauge roads are found in the South. For some years the northern gauge has been invading the southern territory. We find it strongly represented in Virginia, and it has even reached down into the eastern part of North Carolina. It captured Louisiana entirely sometime since, and Mississippi to a considerable extent within the last two years.

There yet remains about 11,000 miles of main track of 5 feet gauge to change. A convention which met some few months ago representing the majority of the southern roads, discussed the question of change. It was decided that the time has come for a radical change, and that all connecting lines should be practically of one standard throughout the whole country. A date was appointed, namely from May 30th to June 1st for all of the roads to change at once. So on to-morrow, Sunday, May 30th a large part of the trunk lines will change to 4 ft. 8 1/2 inches, and 4 ft. 9 inches, – as each may elect. The visible work of changing will only require a few hours, but preparations looking to that end have been made for months.

The South like the North will still have its two gauges depending upon the taste and opinion of each separate road: that is 4ft. 8 1/2 inches, and 4 ft. 9 inches. Doubtless in course of time we will have complete unity, and the 4 ft. 8 1/2 inch will rule. We already have a compromise between these, and some few roads can be found with a 4 ft 8 3/4 inch gauge.

Then will come the question of what to do with the very numerous 3 feet gauges. They require entirely different treatment. For them it is not sufficient to have the rails of the track and the wheels of the rolling stock, but an entire reconstruction of the road-bed and equipment will be necessary.

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