We think that few travellers going South by rail reflect that, as the gauge of the Southern roads differs from the standard gauge, it is necessary to change the trucks of all through cars. Knowing that this change was made at Wilmington, N. C., we got the porter of our Pullman to wake us at midnight, and, though in a somewhat dazed condition, we managed to make out how the thing was done. First, it should be stated that we were coming North over a five-foot gauge, which may be termed the Southern standard. It was therefore necessary to adapt the car to the Northern standard gauge of four feet eight and one half inches. To do this our sleeper was run into an inclined pit having two sets of rails corresponding to the Northern and Southern standards,—bars of railroad iron having previously been put under the body of the car, the ends resting on trucks which ran on a double set of rails on the edge of the pit. The chains having been disconnected, the car trucks, relieved of their load, rolled from under the car down the incline, and were hauled out by a shifting engine; while the new standard trucks were at the same time rolled down on the standard gauge from the opposite end of the pit, their chains secured, and car and trucks pulled out together,—the whole operation occupying scarcely ten minutes. This change is made on all Pullman cars passing through Wilmington. In the case of freight cars, however, the freight is generally transferred to other cars.

E. R. E. Cowell, of the Michigan Central Railroad, has invented a speed-gauge for locomotives, so that the engineer may have in front of him at all times the exact speed per hour of his engine; and, whether the night be dark or foggy, there need be no guessing at the speed, and no disobeying orders as to speed through ignorance. He believes that a speed-gauge is as much a necessity as a steam-gauge, and that the future locomotive will not be complete without it.

The production of petroleum in the region of the Caucasus Mountains increased from 500,000 barrels in 1873 to 4,000,000 in 1881.

Mr. Editor,—The last issue of The Tech contains an editorial urging that the minimum age at which a student can enter the Institute should be raised. It gives many arguments in favor of this change, but it seems to me that a good deal may be said on the other side.

An age requirement is one which must be based on the principle either that the examinations at the Institute are not sufficiently comprehensive and searching to determine whether a man is prepared for the work of the school, or else, that men not having reached a certain age may be able to do the work, and yet not be sufficiently mature to derive the full benefit of the work received. If the former be the reason, is it not a confession by the Faculty that the examinations are not up to their proper standard? Many things go to show that they are not, but the remedy is plainly not to raise the age requirement, but to so increase the severity of the examinations that they shall thoroughly test the fitness of the applicant for admission.

An age requirement is something entirely absolute, and considering how much different students of the same age vary as to maturity, it is evident how unjust it is to say, that because at eighteen a man is more mature than he was at sixteen, therefore all men of eighteen are more mature than those of sixteen. In the English High School, where the individual ages vary from fifteen to twenty, it is not found that the younger boys rank lower in the class, or that they do not comprehend their studies as well as the others. On the contrary, it has been my experience, that, while they get along fully as well as the average, they are by no means the hardest students, but that their position in the same class as those older than themselves is due to other causes,—favorable circumstances, natural ability, or often both.

Coming back to the Institute, is it not found that those of the younger men, entering fully