

Mr. TAIT—The only one we know of is that invented by a man who lives at St. Thomas. We tested it, because if such a device was to be had at reasonable expense and could be depended upon and should operate without delay and inconvenience we would adopt it.

Mr. CASEY—That is Mr. Deyell's invention. You have found it would accomplish the purpose required?

Mr. TAIT—"It will then be necessary in order to set out a car to bleed (that is, reduce the pressure in the air brake cylinders, auxiliary reservoirs and train line from 70 lbs. to the square inch to the pressure of the atmosphere) on the car desired to be set out and all the cars in the rear of it, assuming that the car is to be switched out from the rear end. After the car has been switched out and the cars behind it coupled up again to the forward part of the train, it will then be necessary in order to make the brakes operative on them to again recharge the auxiliary reservoirs and train line of the cars which before were bled. In taking a car into the centre of a train, the cars of which are equipped with this device, it will be necessary to follow practically the same programme."

Mr. CASEY—In the case of passenger cars, they are almost invariably switched out from the rear of the train?

Mr. TAIT—Not always. Sometimes they are set out from the middle of a train, when we have to leave off first or second class cars. While the delays to the passenger trains resulting from the use of such a device would be very serious, yet they would be small as compared with the delays of freight trains, which often consist of as many as 40 cars, and in connection with which, particularly local freight trains, there is frequent switching on and off of cars. If railways are compelled to equip their cars with such a device, it will be impossible to give the same despatch as now to either passenger or freight trains, and it will necessitate the employment of extra men, if not on the former, certainly on the latter, class of trains. The Westinghouse Company employ a very intelligent staff of experts in connection with their brake matters, and they look into every new apparatus and device for the power braking of trains, and railway companies all over the continent rely on them almost entirely as to braking trains and the devices to be used. They have not approved of any such device as this. The air-brake apparatus is a most delicate one; there is probably nothing so delicate as a triple valve. We are equipping our cars with the Westinghouse system; and, if we put something on that does not meet with their approval, they will not be responsible for the results. We only know, as I say, of the one device that accomplishes this object; but it is impracticable to work it. Our experience is that no such device is needed. We have never heard that brakes properly tested have failed to work, for they are automatic. I could bring expert testimony here to that effect. No case has been proved of a cock in the train pipe having been closed by a malicious person. Accidents have resulted from a closed cock, but it was owing to the cock not having been opened. This, however, cannot happen, owing to the rigid system of testing brakes after any change whatever. The old cock in train pipe was not safe, as the handle was exposed when the cock was open, and it has been knocked shut by a flying missile. The new cock, called "angle cock," cannot be knocked shut, as when open the handle is in line with and close to the pipe, so as to be protected by it, and it cannot fall shut, as it works horizontally. No safer device has yet been introduced which can be operated in a reasonable manner. Any device used in the hose couplings is very dangerous, as it might prevent the escape of air if the train parted, thereby preventing the automatic action of the brakes. Such devices are in the market, but should not be considered for a moment. The air-tight dummy coupling used on the Michigan Central tenders only would be quite impracticable if used throughout the train, owing to the great loss of time and waste of air in bleeding and recharging auxiliary reservoirs in train pipe when switching cars and are out of trim. The self-locking angle cock, such as Deyell's, is equally as well as the dummy couplings when switching cars, and is no better than the ordinary angle cock, as it will not lock if not fully open. Therefore, as brakes can be tested with the cock half open, the test would not prove that the brakes were in a condition which could not be