## REMARKABLE ESCAPE FROM LIGHTNING.

To the Editor of the Scientific American:

The narrowest escape from death by lightning of which I have ever heard came to my knowledge while lecturing a few weeks ago at the Florida Chautauqua. The drug store, which is used as a post office by the good people of De Funiak, stands between the railroad station and their beautiful little lake. At the time to which I refer it was "protected" by a common sized twisted copper band lightning rod, with iron core, fastened to the house by glass insulators in the old fashioned way. Several other houses in the town were "rodded" in the same way; but after this one was so badly shattered they were torn off by their owners, "to lessen their chances of getting struck, you know," they explained. About a hundred feet back of the post office stood

two fine specimens of the tall pines which grow so abundantly in that region.

On the afternoon of the 18th of last August, at about 1 o'clock, a number of boys and men had collected under the post office porch, thinking, on account of the lightning rod, that they would be safe from the lightning, which was playing rather freely from an only partially cloud-covered sky. Among them was John Chisholm, a merchant of De Funiak, who was sitting about half way between the corner post of the porch and the nearest window.

The lightning struck the two high pines, and, after shattering their tops, leaped to the rod, completely melting its points, and then running along the comb of the roof to the gable and down a corner, leaving it in the condition shown in the engraving. Mr. Chisholm's only recollection of the stroke is a sensation like that of a heavy blast of hot air striking him between the shoulders. He was thrown forward upon his face and taken up for dead. His shoes were new and his trousers nearly so, yet they were left looking very much as if they had been attacked by an army of hungry rats. The engravings, which are made from photographs which I had taken for the purpose, give a fairly good idea of their condition. How a man could have his clothes chewed off from him by lightning in that style and still live is a mystery. His shirt was torn entirely in two. His body was badly blistered, especially from the knees down. Becoming conscious, he experienced a terrible feeling of suffocation and "heartache, as though it would burst." He remained these photographs had his pipe knocked out of his

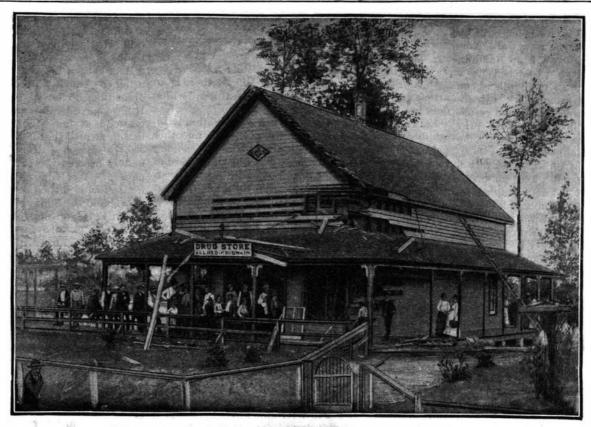
in the bones and a stinging sensation, "as though a thousand needles were being stuck all over my body."

Now, after a lapse of over nine months, Mr. Chisholm has gradually recovered the use of his limbs, only suffering from an occasional violent involuntary jerk in the back. He attends to business, and has recovered much of his former sociability. As his photograph in dicates, he is altogether the best preserved specimen of a thunderbolt that I have ever seen.

Several others sitting near were, of course, more or less. shaken up.

Dr. Allred caught a part of Mr. Chisholm's charge in his foot, and went on crutches for some days.

The jeweler, Mr. Cochran, who was at



STORE STRUCK BY LIGHTNING-DE FUNIAK, FLORIDA.

work in the window nearest the corner, had his hair erally agreed that the concrete facings were superior



JOHN CHISHOLM.

helpless for four months, suffering terribly from aching mouth and broken to pieces—a calamity which I ima- asked him to give some account of the development

gine cost him many a regret. JOHN B. DE MOTTE.

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## Armor Plates and Concrete.

A course of experiments were recently conducted at the camp of Chalons, in the presence of M. De Freycinet and the heads of the Paris military technical commission, for ascertaining the relative resisting powers of armor plate and concrete faced cupolas against melinite shells. The trials demonstrated the shelter afforded by the concrete facings of 10 feet in thickness to be much more effectual than the metal plates alone; but in justice to the latter system of protection it must be mentioned that the armored cupolas had already withstood five months' exposure to the heaviest shot and shell that could be directed, almost daily, against them. It was gen-

and breast badly singed, and the artist who took to the plain metal shields, and conjoined the two substances were comparatively irresistible to melinite, but the metal alone showed an unexpected and extraordinary degree of resistance against the discharges from guns and mortars of the largest known caliber, sometimes at point-blank range. Some of the shells employed contained even 197 pounds of melinite, without materially impairing the offensive purposes of the cupolas, for, spite of their battered plates and other damages, the two guns within were found still serviceable and readily workable to the last.

The compound protection system was approved for future constructions of a similar kind, but it was held that the metal cupolas had maintained the continual crushing tests with so much success that it was adjudged in the end to replace the shattered surface plates, and send them to strengthen the defenses on the eastern frontier. Contrary to first reports, the gunners within the cupolas could have remained within during all the incessant pounding unharmed, and well able to serve their pieces.—Broad Arrow.

## Natural Gas in Kentucky.

Mr. Albert W. Moreman is interested in the gas wells now in process of development at Brandenburg. His father owns salt wells there that are operated by means of natural gas, which has been used for this purpose some twelve or thirteen years. Mr. Moreman's house is also heated by natural gas.

A reporter recently called on Mr. Moreman, and

of the gas wells of Brandenburg. H e said: "Within the last few months seven or eight wells have been bored. Five of these give a flow of from 1,000,000' to 1,500,000' of gas a day. The well struck recently by the Doe Run Natural Gas and Manufacturing Company is the largest of the wells, giving at a depth of 437' a flow estimated at from to 10,000. 000' per diem, and having a pressure of 225 pounds to the square inch. The estimates are made by practical gas men who have been boring about Pittsburg. This is the only well in which any shooting has been done. We put down a 12 pound cartridge, which brought the gas. Every well that has been bored gives gas in some quantity."-Louisville Times.





MR. CHISHOLM'S NEW GAITERS AND CLOTHING AFTER THE STROKE.