### WONDERS NEVER CEASE

About eight years ago wireless experts of the U. S. army began work on the problem of providing a wireless telephone system whereby the sound of the human voice could be successfully transmitted between aviators high above the earth and between them and persons on the ground. With the assistance of civilian electrical experts such a device was developed which in tests about a year ago gave reasonably satisfactory results.

After the invention had been thoroughly tried out, studied and compared with wireless apparatus which the British and French had developed for the same purpose, certain refinements and improvements were added and then, some weeks before hostilities ceased, the sets began to go over from America in quantities for installation on American battle planes in France.

Officials of this and allied countries regarded the invention as one of the most important and valuable that has been worked out in connection with military aviation in modern times and consequently the greatest precautions were taken to prevent the Germans from getting any inkling of its existence or discovering the secret.

However, the Germans noted that the Americans evidently had a superior means for the transmission of instructions, reports, etc., between airplanes and the ground and from one machine to another in flight. With a view to possessing themselves of the secret they ordered that an American plane with wireless telephone equipment be shot down and taken to be examined. Followimg the capture of such an order by the Yanks the veil of secrecy was lifted somewhat and still more so after the armistice was signed.

With the new wireless telephone verbal orders and messages can be transmitted between planes in flight and between flying planes and the ground, the sound of the voice being transmitted clearly and loudly enough to be heard by the aviator above the sound of the motors. It is said that orders can be successfully sent to machines as far away as six miles.

Military men consider the device the most satisfactory means ever developed for keeping aviators in communication with each other and with officers on the ground, thus adding greatly to the effectiveness and efficiency of airplanes in war.

A few weeks ago President Wilson stood at the White House before one of the new field wireless telephone switchboards by means of which, together with an aerial wire running up to the portico of the building, he transmitted verbal orders to aviators flying 2000 feet above the Potomac river, some four miles distant. At his command they dived, looped, circled and went through various evolutions in the air, proving to all who knew what was going on that the invention is a wonderful success.

### OIL AND TIDES

It is reported that the production of the oil fields bordering the Gulf coast and even the wells themselves varies with the flow and ebb of the tides, says the Oil City Derrick. Certain members of the oil fraternity with an investigative turn of mind studied the matter until their conclusion was that in a way the ocean was connected with the wells and influence their production. A recent heavy offshore wind drove the waters back so that the normal low-water line was high and dry, and at the same time the production of the oil and gas wells fell off appreciably, those nearest the Gulf being most affected.

The whole matter is easy to understand when one considers that a column of water 100 feet high will produce a pressure of approximately 48 pounds to the square inch. The oil and gas sands extend from the shore under the water and as the ocean's bottom lowers, the strata are laid bare at practically the same depth under the sea's surface as under the ground on shore.

At a depth of 2,000 feet, the pressure on the sand would be close to 1,000 pounds per square inch, sufficient in most cases to force the water into the sand against accumulated pressure of the oil and gas contained therein. The oil and gas in the sands would then be forced in turn to the outlets made by the operators, and as the surface of the water was raised or lowered, a reduction or increase in pressure would be felt on the sands, communicated to the wells and become noticeable in the production.

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### COULDN'T MISS IT

The average foreigner can rarely comprehend the geographical area of the United States, as was quite fully illustrated by the Englishman and his valet who had been travelling due west from Boston for five days. At the end of the fifth day master and servant were seated in the smoking car, and it was observed that the man was gazing steadily and thoughtfully out of the window. Finally, his companion became curious. "William," said he, "of what are you thinking?"

"I was just thinking, sir, about the discovery of Hamerica," replied the valet, "Columbus didn't do such a wonderful thing, after all, when he found this country, did he, now, sir? Hafter all's said an' done, 'ow could 'e 'elp it?"

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A woman of intellectual tastes found it difficult to remember all the facts she collected. She therefore secured the services of a professor of one of the best memory systems. Scarcely had the professor taken his departure after a successful first lesson, when a loud double knock was heard at the front door.

"Who was that, Mary?" the lady inquired of the servant.

"Oh, if you please, ma'am" said Mary, "it was the memory man; he forgot his umbrella!"