

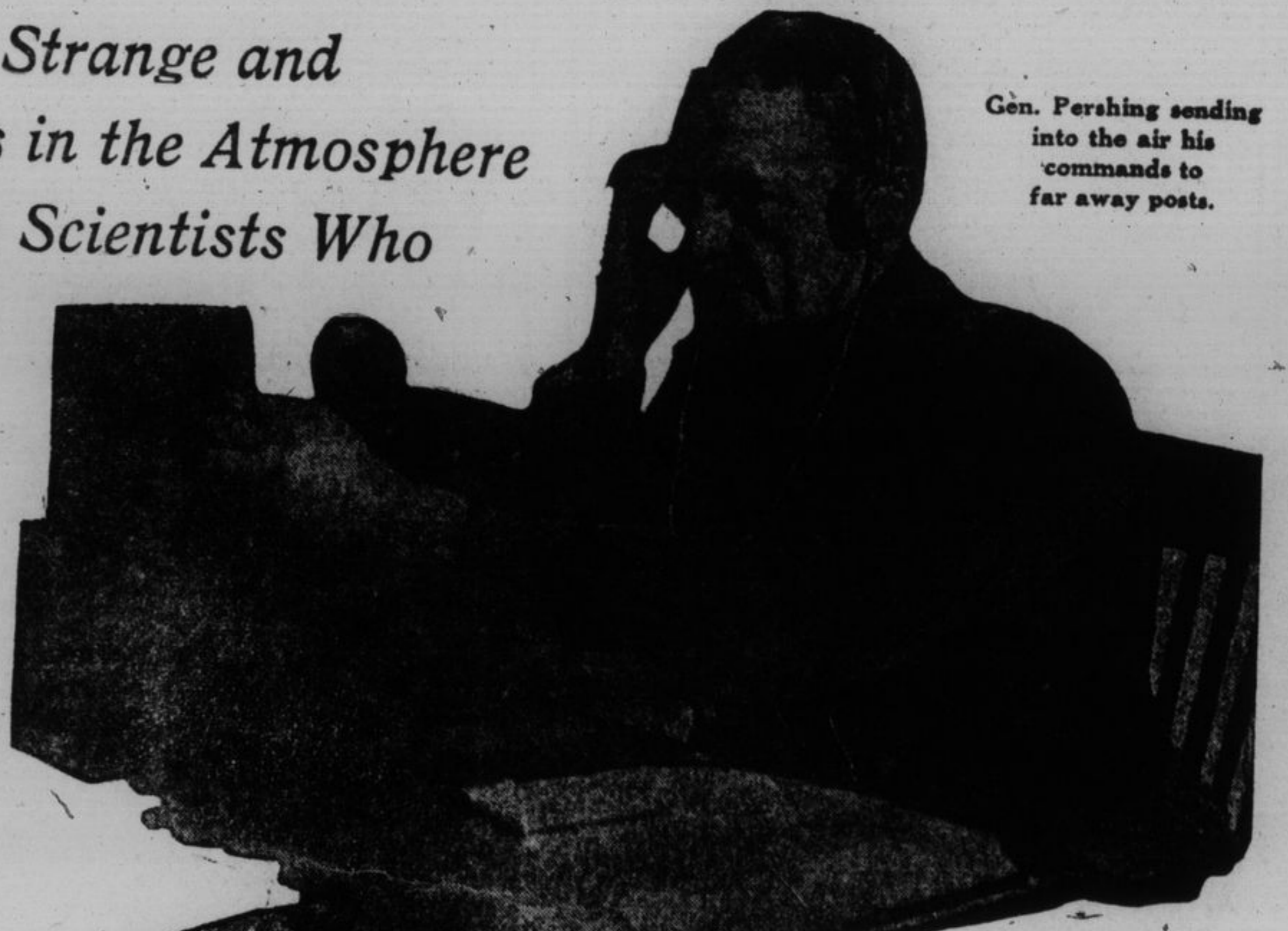
What May Happen If the Air Becomes too Crowded!

Sudden Awakening of Strange and Powerful Forces in the Atmosphere Becomes Alarming to Scientists Who Fear the Results of Own Experiments



Policeman equipped to instantly receive orders from headquarters without resort to a telephone.

Gen. Pershing sending into the air his commands to far away posts.



At a gathering recently of engineers and scientists attached to various experimental laboratories near New York cities one of them, who had just returned from a mission to Italy, astonished his hearers by declaring that the air was becoming so crowded with mysterious, intangible forces that the problem of experimental science had become the avoidance of chaos.

"The amateur who plays with the radio-telephone goes merrily on his way," this scientist exclaimed, "playing with dynamite. The experimenter in the great laboratories goes his way not so merrily. The former is fascinated by the strange, unreal things he can accomplish—the weirdness of the results of his endeavors. The latter is alarmed by the potencies of mysterious forces he labors with. Both are crowding the air. So is the scientist in the other laboratories where they are endeavoring to harness the explosive powers of the atom, or rather the electron. Both of these experts fear the contact of the forces they release with those of the great electrical engineer who, it is generally believed, is near to announcing his discovery of a means of transmitting electric current through the air without wires—a method which will do away with cables and serve to every user of electric lights or electric power his current in unlimited voltage from power house to his door without intervening wires.

"Mysterious agencies are required for the working out of all these experiments. These agencies are active in the air. We release them and do not know what becomes of them when they have served our purpose. We do not know whether or not they will be friendly to each other when they meet in the air or whether we will not at some important instant in some experimenter's progress, release some new activity in the air which will go on a rampage and turn science topsy-turvy—if not do something worse."

Two recent events, widely dissimilar in character, yet both having to do with overcrowded air and both startling, illustrate in striking manner the warnings of this speaker.

In Illinois a business man who had always enjoyed the best of health complained to his physician that for several nights he had been unable to sleep, being kept awake by what were, apparently, psychic voices and strange snatches of music that seemed to "come out of the air."

These noises, he said, began early in the night and continued for many hours. They were faint, but distinct and apparently were not mere ramblings, but weirdly understandable conversations, and the music he could recognize as popular tunes of the day. When he visited his physician he was haggard from want of sleep and complained that he could no longer attend to his business.

He was treated for insomnia and this treatment having no effect the physician was of the opinion his patient was suffering from hallucinations. A psychologist was summoned in a consultation and the patient submitted to a thorough examination. The specialist reported, after long observation, that the patient did not seem to be in such mental condition as would

foster hallucinations. He discovered, however, that during the few nights the patient spent at a sanitarium under observation the voices and music ceased. When he returned to his home they again interrupted his sleep.

Both the physician and the specialist visited the man's home. They prepared to spend the night with him in an adjoining room. Shortly after all had retired the patient excitedly flung open the door that connected his room with that occupied by his professional guests. Even in this

rat in the house. There was none in the neighborhood.

Investigation disclosed that the springs in the bed occupied by the patient had become an ideal aerial and "picked up" the broadcasting of the sending station miles away.

"We have grave reason to fear," said the speaker above mentioned, "that during the course of certain wireless experiments now being made by the great radio corporations a situation may suddenly occur—unheralded—taking shape in a single instant, which will cause every telephone conversation at that moment being transmitted over the ordinary telephone wires, to be shouted out of every radio receiving instrument for many miles around. Imagine the result of such a tremendous volume of conglomerate sound suddenly bursting upon the ears of the listener at a receiving instrument.

"Would not that be chaos indeed?" The result would be, of course, that telephone wires would have to be grounded almost over night. "It is not that we predict any such occurrence," the speaker continued, "We do not know of any situation in our experiments which would cause it. We know, however,



A "wireless telephone class" in the public schools; the radio now is a daily study.

other room voices, music and other strange sounds were plainly heard.

When, suddenly, a voice began to recite such a very prosaic thing as a daily market report the physician suddenly laughed aloud. He recognized the "broadcastings" from a wireless telephone station several miles away.

But the patient had no receiving apparatus in the house.

That even such a thing might happen, we must be very careful and not stumble upon what would be a great discovery in such a sudden, unprepared way.

The other incident referred to above

was the tragic collision of the two passenger planes bound across the English Channel, with the resultant loss of life. So far as there is record this is the first time two passenger planes or even non-passenger carrying planes in time of peace actually collided in the manner that trains run into each other—meeting along the same aerial track.

If to-day students of aerial transportation are asking when there are comparatively few aeroplanes in the air, it is possible for two pilots to select air lanes so close to each other that, in a fog, their planes are in danger of running into each other—what will be the situation a few years hence when, perhaps, there will be a thousand or more planes in the air at any given moment for every one that is aloft to-day?

Already there has been successfully demonstrated an aeroplane which—wary of the air, may fold its wing much as does a bird and, coasting to the ground, find a landing in almost any ordinary street and pursue its way aground, weaving in and out of traffic with the celerity of a "fiver" automobile. So successful is this development of the aeroplane that already there are experiments under way to adapt it to the water also with considerable prospect

of early success. There then will be a combination aeroplane, automobile and hydroplane, capable of moving at high speed either on water, land or in the air, which will people the air, it may be, with as many travelers as there now are automobilists and motor boat enthusiasts combined.

M. Rene Tamplin is the Paris engineer who has perfected what he calls the "avion-automobile," or flying motor car. In the air this plane is hardly distinguishable from other aeroplanes, except that its wings are somewhat longer and shallower in proportion. There are two engines, one of 300 horse power, used when the machine is in flight; the other is a 10 horse power monobloc, which is used when the machine travels on the ground.

The pilot may slowly fold the planes when he wishes to descend, needing only a straight street ahead with little traffic in his immediate neighborhood, to make a successful landing. The larger engine is cut off when the descent begins. The smaller one is connected after the landing has been made. A speed of 100 miles an hour may be reached in the air and on the ground the machine is capable of even a greater speed.

In beginning a flight M. Tamplin first drives his plane along the ground, then, using his smaller engine to start the larger one, gradually lifts into the air, his ascent being easier and sharper than that of any of the usual aeroplanes. When the wings are folded and the aeroplane has become an automobile it can squeeze through passageways in the traffic too narrow for the ordinary motor bus. Almost daily M. Tamplin can be seen in his machine threading the traffic in the Rue Lepic and climbing the hill—which leads up to Montmartre.

It is predicted by some enthusiastic engineers that when this machine has been tested by time and improved it will virtually replace the pleasure automobile, at least for those who are not fearful of the air. Then, indeed, would the air be crowded with a most tangible traffic.

Experimenters recently have met with some unique situations in the releasing of wave currents which, they believe, have been effected by the air disturbance caused by the aeroplane. A displaced current of air, these scientists observe, creates an unusual condition in the atmosphere. "In our experiments we can deal only with the atmosphere in its usual state"—that 1,000 aeroplanes in a given circle of space would have a very appreciable effect upon a congestion of wireless activities in that circle is very much feared. Whether or not the disturbed wave currents would likewise affect the mechanism of the aeroplanes—that we wonder about, too.

At Columbia and other universities and at the great Edison laboratories, strides are being made toward the harnessing of the energy concentrated in the electron. Strange forces are constantly being shot through the air in these experiments—for the manner in which chemistry is approaching this task requires the penetration of the atom by invisible forces which must be sent at random through atmosphere. What becomes of these forces, these "wave strengths," not even the scientists know. They know only that so far they have been lost—they have not reached their destination. Rambling in the air, they are crowding it more and more—they meet, join potency and discover themselves by some sudden, unexpected demonstration wholly new to science?

Mystery of Lost Treasure of the Popes

In winding up the affairs of the late Pope Benedict XV, the historians who will compile for the Vatican library a history of his reign have come across a curious reference to the intention of Benedict to initiate a treasure hunt, a plan interrupted by his death.

It was not any of the lost galleons or the hoards of any ancient pirate Pope Benedict had in mind, but the "lost treasures" of the Church itself.

Few know that, buried somewhere in France, close to the quaint old city of Avignon, there are buried countless bags of silver and gold, crates of priceless crosses incrustured with jewels and a great store of gold coins of France, England and ancient Austria, all rightfully belonging to the Popes and lost since the fourteenth century. In the treasure, in addition to its material wealth, there are a number of sacred relics which are of greater value to the Pontiff than all the gold and silver and gems.

It is largely tradition that the Vatican owes its knowledge of this "lost treasure," but it is a tradition so well authenticated by circumstances that Pope Benedict evi-

dently thought himself justified in sending a mission from Rome to superintend a new search. It was fitting also that it should be Benedict, a Della Chiesa, who should revive the tradition and lend support to a hunt for it. It was a Della Chiesa, an ancestor of Benedict, who was most concerned in burying the papal treasure at Avignon, it is believed.

Benedict, however, had made plans to send a little company of representatives headed by one of his secretaries, to open the search anew, and had communicated through his diplomatic channels with the French Government to that end. It is this communication to France that has been discovered in his private archives. France had not yet had time to forward the Pope the necessary authority when he died.

It is not known, of course, if the new Pope will follow Benedict's plan. In the meantime the lost treasures of the Popes still are lost.

The incident took place in the time of Pope Innocent VII, when in the fourteenth century the seat of the papacy was removed to France by order of the French King, Philip IV. At that time there were numbers of free companies or mercenaries laying the northern parts of

France under tribute, and some of them penetrated far south. One of these free companies is known to many readers—the White Company, the same that runs throughout Conan Doyle's romance bearing that name.

In 1367 the "White Company," according to the few local references preserved to this day, appeared in the rich valleys to the north of Avignon. The "free companions" went about their customary business with their accustomed thoroughness. They stripped the countryside bare as a hand, many of the inhabitants fleeing for safety behind the walls of Avignon and elsewhere.

Then, to the dismay of all, came hasty news of the advance of the "Companions" upon the town. War hardened and irreligious they recked as little of the Pope's fulminations and excommunications as they did of his military forces.

It was an age of insecurity, when they who had acted very wisely kept much of their riches in a portable condition. In the papal treasury were much gold coin and convertible valuables, kept against an emergency. But the rapid advance of the hands of the "White Company" cut off any opportunity of getting the treasure safely dispatched.

