

## PROMISE TO END SMOKE IN CITIES

Electrical Engineers See Air Quickly Cleared.

### FOG WIRES TO AID SHIPS.

Practical Demonstration Is Given Showing How Powerful Electric Voltage Will Detach Particles of Carbon and Other Material Substances From Gases Passing Up a Chimney.

A means of making Pittsburgh a spotless town, of doing away with London's fogs and of enabling safe navigation in thick weather was outlined in three papers read before the members of the American Institute of Electrical Engineers at the closing session of the convention in New York. Electrical precipitation, a method first practically applied by Sir Oliver Lodge of England, was stated as the solution of these problems.

A practical demonstration showing how a powerful electric voltage will detach the particles of carbon and other material substances from the gases passing up a chimney, thereby doing away with the objectionable smoke, was given in the auditorium. A quantity of lampblack was blown up through a fifteen foot smokestack placed on the platform. The flying particles filled the air. Then 50,000 volts were turned on, and at once the lampblack attached itself to the interior of the chimney and the air cleared.

By adjusting the voltage to the size of the smokestack to be treated factories will be made smokeless, it was said, and thousands of dollars that are now lost through smoke damage will be saved.

Moving Pictures of Fogs. Moving pictures of fogs and clouds and their elimination as produced by electricity have been taken, it was said, to show the practicability of the plan to free London from the grip of the dense fogs and to eliminate a menace of sea travel. At the present time Sir Oliver Lodge is said to be working on a plan by which London will be strung with wires through which a high voltage will be passed and the fog cleared away. Engineers at the meeting agreed that the plan was not impossible and expressed great interest in the work.

An unusual idea was suggested for removing the fogs from about ships at sea. A small aeroplane electrically propelled from a ship will fly about two boat lengths in front of the liner during the fog. From the flying machine will be strung a high powered electric wire, reaching back to the ship. The current passing through the wire is expected to cause a precipitation of the moisture in the air and clear a channel some 2,000 feet in advance of the ship and to some extent on either side through which the ship may safely pass. This will enable the lookouts to detect another ship approaching in time to maneuver the liner out of danger.

The patent rights on the discovery are owned by the Smithsonian institution at Washington and the Mellon Institute of Industrial Research of Pittsburgh. The income on the patents will be devoted by the institutions to furthering research work on scientific subjects, it was said.

The papers dealing with the discovery were read by Dr. W. W. Strong of Mechanicsburg, Pa., Arthur F. Nesbit, professor of electrical engineering at the University of Pittsburgh and electrical engineer of the Mellon Institute, and Linn Bradley.

### WESTWARD HO! BY WAGON.

Staten Island Prairie Schooner Is Going to San Francisco.

Driving up to the New York city hall in an old fashioned prairie schooner drawn by two horses, John Urflinger and William Stevens obtained a letter from Mayor Mitchel to deliver to Mayor Rolph of San Francisco.

The odd trip across the continent is being made in the interest of Staten Island business men, who want it advertised that Staten Island is the gateway of the eastern coast, just as San Francisco is supposed to be the gateway of the western.

The schooner was driven about Manhattan, and a trip made through Brooklyn. Charles J. McCormack of Richmond borough started the wagon on its long overland trip to the western city, where it is due to arrive before the Panama exposition ends.

### RICHEST TYPIST QUILTS JOB.

Not Because She's Tired, but She Wants to Give Needy Girl Work.

Miss Flora Holt, the nation's richest stenographer, who recently inherited the estate of Vilna McDonald of Escanaba, Mich., daughter of a former lieutenant governor of Michigan and who upon becoming an heiress said she would not quit her job, has at last resigned.

She has quit, not because of a wish to be idle, but because she believes that by remaining at work when she did not need the money she was keeping some needy girl out of a job. The estate which she inherited was nearly \$250,000, amassed in the iron mines of upper Michigan. Miss McDonald was her cousin.

### CONSCRIPT ARMIES.

Military Rules In Force In the Various States of Europe.

Napoleon in 1798 first brought conscription into force, then it was adopted by Prussia after her defeat by the French at Jena in 1806. In most countries where conscription is in vogue every man on reaching a certain age—from nineteen to twenty-one—has to undergo a period of military training. This prevails in France and Germany, but in Russia a certain number of men is required only, and if this is exceeded the authorities decide from whom full service shall be exacted. Of course certain men are excused, such as the only sons or eldest sons of clergymen, etc.

In Spain and Portugal every man is not directly called upon, but each locality is obliged to furnish a certain number, the men being chosen by ballot. There is no standing army in Switzerland, but all able-bodied citizens serve in the militia, which is called upon to train a few weeks every year. Although compulsory service is the law of the land, the army in the Netherlands is mainly composed of volunteers.

It is considered by some people that conscription is unpopular, but in the rural districts of the countries where conscription is in force the inhabitants look forward to the time when they will be called upon as the only exciting change in their lives.

The best conscriptive countries have so legislated that when the conscript leaves the army suitable employment is found for him; also, another point in his favor, his period of service is not so long as that of the volunteer.—London Chronicle.

### A BOTANICAL PARADISE.

Juan Fernandez Islands Have More Than One Claim to Fame.

In the Juan Fernandez group of islands, 360 miles from Valparaiso, the Chilean government has a wireless station. Three islands comprise the group but the name is usually applied to the largest, Mas a Tierra, closest to the mainland. Here it was that DeBee pictured Alexander Selkirk (Robinson Crusoe) in exile.

Mas a Tierra is of irregular form, about twelve miles in length, but hardly four miles across in its widest part. When seen from a distance the peak of El Yunque the arid appears conspicuously in a range of precipitous mountains and attaining a height of 3,000 feet. From the summit to the base the mountain is wooded, with a wonderfully fertile valley at the foot.

Dr. Carl Skottsberg of the Swedish Magellanic expedition landed on the island in 1908, and the eminent geographer wrote subsequently that "from a botanical point of view Juan Fernandez is one of the world's most famous places. So many wonderful plants are brought together here on a small area that one must touch them to realize that one does not dream." Colonization of Juan Fernandez began some years ago, and a considerable fishing settlement is now in evidence.

In the finer restaurants of Valparaiso and Santiago the lobsters of Juan Fernandez are considered delicacies for which fancy prices are paid.—Argonaut.

### Asking Too Much of the Bank.

The officials of the English savings bank department, a correspondent writes, occasionally find themselves regarded as a kind of universal purveyors. A depositor sent his bank book with this modest request: "There are some little things I should like to get from London, and one is some natural leaf tobacco. I should be glad if you will send two ounces and charge to my account. It is only to be obtained in the largest tobacco stores." We failed to comply with his wishes, whereupon he wrote an indignant letter to the comptroller of our department.—Manchester Guardian.

### Languages of India.

One hundred and fifty different languages are spoken in India, most of them unwritten, and this fact frequently leads to trouble in the courts of that oriental country. Strangely enough, Indians frequently drift into that capital who can find no one able to understand their vernacular. Neither the court nor the court interpreters understand some of the litigants and witnesses in legal cases.

### Obnoxious Presumption.

"Why did your sister drop her welfare work?" "While she was out trying to uplift the children of other people another welfare worker came along and tried to uplift her children."—Louisville Courier-Journal.

### Flowers.

Slowest—Virginia creeper, trailing arbutus. Most sedate—Jack in the Pulpit. Dopeiest—Poppy. Most active—Johnny Jumpup. Most taciturn—Chrysanthemum.—Detroit News.

### Chemistry Kindergarten.

Bobby—Is oxygen what oxen breathe all day? Papa—Of course, and what everything else breathes. Bobby—And is nitrogen what every one breathes at night?

### Different Ways.

Hewitt—I have been pinched for money lately. Jewitt—Well, women have different ways of getting it. My wife kisses me when she wants any.

There is not a single moment in this life that we can afford to lose.—Coulburn.

### "BRANDED" TO WARN OFF SUBMARINES.



Photo by American Press Association. Holland-American liner with name enlarged to show German submarines in the water below.

### AEROSLED GOES MILE A MINUTE.



Photo by American Press Association. William Travis Huhn, society man, has fitted an ordinary sled with propeller and motor.

Extravagance. Extravagance in thought is as bad as extravagance in living expenses.—E. W. Howe's Monthly.

### Egotistical.

"You sometimes disagree with these scientific experts?" "Not at all," replied the serene egotist. "Notwithstanding the fact that I have thought a matter out to a sound conclusion they frequently insist on disagreeing with me."—Washington Star.

### Coming Across.

Hampton—Dinwiddie told me his family is a very old one. They were one of the first to come across Rhodes—Not at the grocer's.—Judge.

### Would Hang All Submarine Raiders Captured



Photo by American Press Association. LORD CHARLES BERESFORD.

Spencer Leigh Hughes, M. P., told of the following amusing experience. He was once passing the war office building in Whitehall when his companion, a Scotchman, pointing to the emblematic devices engraved over the door, indicated the Scotch thistle, the English lion and the Irish harp. "Where is the emblem of Wales?" asked his friend. "Oh," Mr. Hughes replied, "I expect there is a leak in the roof."—London Express.

### Badly Scared.

"Were you frightened during the storm?"

"Dear me yes. The windows were all open and I was so afraid of the lightning that I didn't even stop to wake up John. I jumped right up and closed them myself."—Detroit Free Press.

### Prohibitive.

"What's the matter, daughter?" "Father, I want a duke." "That can be arranged, my dear was afraid you might want a baseball pitcher."—Baltimore Sun.

There is no fatigue so wearisome as that which comes from want of work.—Spurgeon.

### Falling Up Out of a Balloon.

If a man falls out of a rising aeroplane or balloon he will not go toward the earth, but will continue rising into the air for an appreciable time. If the air machine were stopped in its ascent at the time it could catch the man as he came down. If the airship were ascending at the rate of thirty-two feet a second the man would rise sixteen feet before beginning to fall toward the earth. Thus, by reducing the speed of its ascent, the vessel might keep by the side of the man and rescue him.

The reason why the man rises is the same as the reason for a bullet's rising when shot from a gun into the air—both the man and the bullet are given a velocity upward, and it takes some time for gravity to negative that velocity.—Glasgow News.

### Extremes.

Cham, the French caricaturist, was talking one day with a Gascon, who bragged that his father's ancient baronial dining hall was the wonder of the world. It was so high you could hardly see the roof.

"My father had a dining room," said Cham, "which was just as remarkable the other way. It was so low that the only fish we could serve at table was flounder!"

### Always Apprehensive.

"My wife gets nothing but apprehension out of life."

"How so?" "She's afraid of cows in the country and automobiles in town."—Kansas City Journal.

### A Demonstration.

"I distinctly saw you with a policeman's arms around you." "Oh, yes, mum! Wasn't it nice of him? He was showin' me how to hold a burglar if I found one in the house."—Life.

### NEW SULTAN OF EGYPT GREETES PEOPLE.

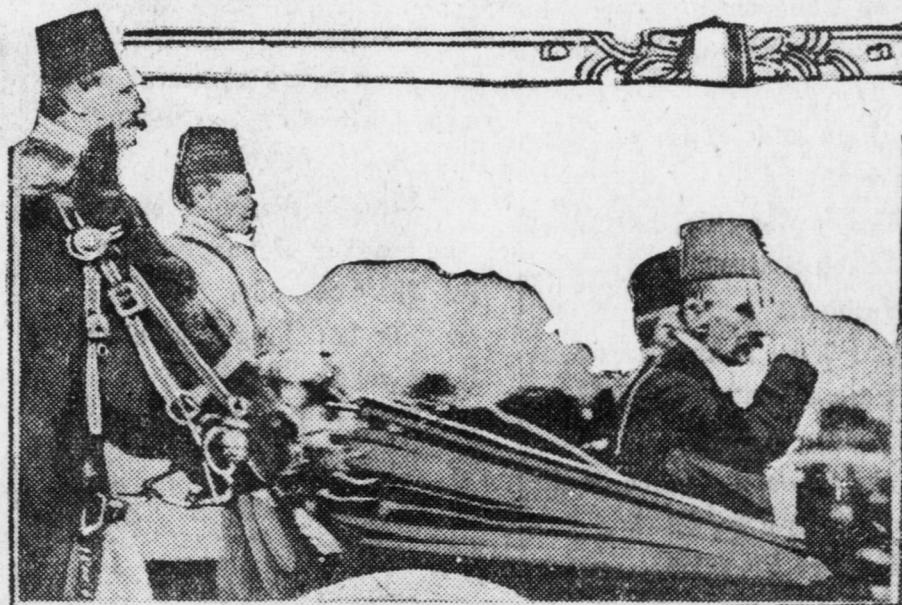


Photo by American Press Association. Hussein Kemal saluting his subjects in the streets of Cairo.

### SOCIALIST IN SIXTY-FOURTH CONGRESS.

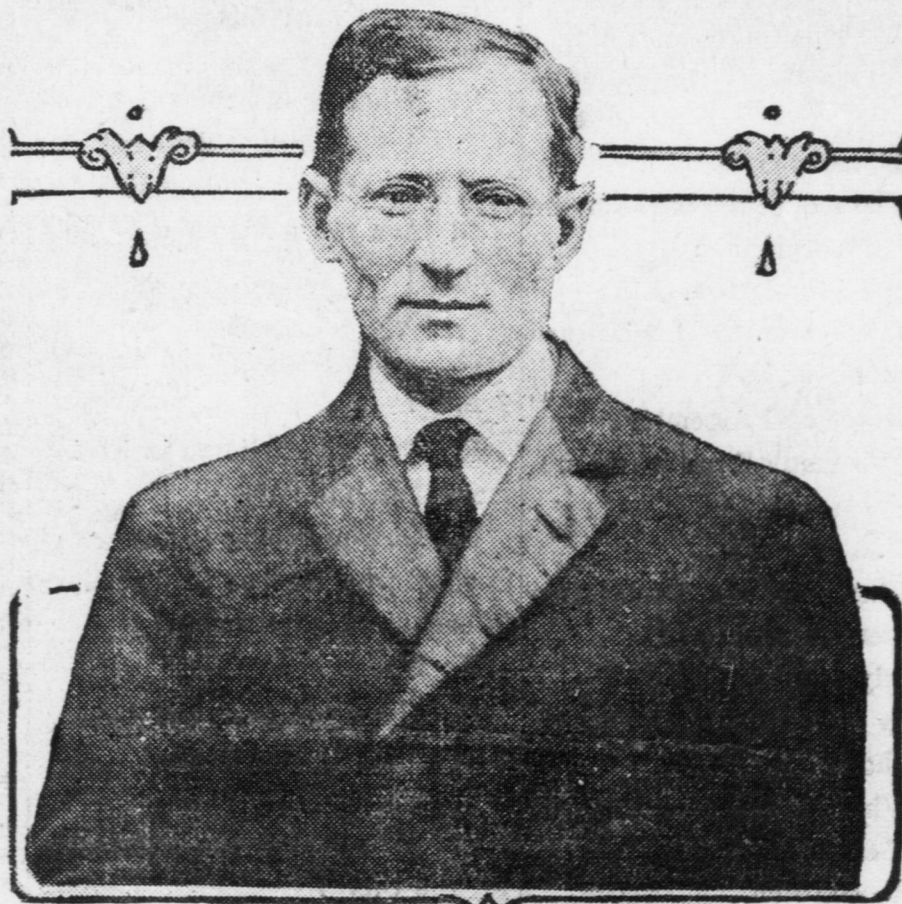


Photo by American Press Association. Meyer London of New York is lone Socialist elected to the Sixty-fourth congress.

## BELL RINGS WHEN STORM IS ON WAY

Approach of Atmospheric Disturbance Told by Electricity.

### FORECASTS ARE ACCURATE.

Machine of Such Delicate Arrangement That It Is Affected Two to Seven Hours Before Storm Arrives. Most Effective in Summer—Reliable as Government Bureau.

A remarkable machine has been installed upon the roof of the New York Edison company's Waterside station in New York city for the purpose of detecting the approach of storms. This ingenious instrument, which is said to surpass even the United States weather bureau in the general accuracy of its forecasts, is a brand new device, which has such delicate perceptions that it can feel the coming of a storm while the disturbance is still from two to seven hours off.

"The importance of such a precaution is appreciated when one senses the sudden and at times tremendous demand for light in both office and residence buildings on the descent of storms," says the Edison Monthly. "Occasions have arisen when this demand has 'boosted' the summer day normal of 60,000 kilowatts to 105,000 kilowatts in less than twenty-five minutes.

"The device in question is not complicated and will no doubt meet with ready acceptance by central stations generally. Its principle rests on the fact that summer storms are almost invariably associated with electrical disturbances. Detection therefore is brought about by what virtually amounts to a wireless telegraph receiving circuit. To a certain extent such apparatus is effective during winter weather, though storms at that time of year exhibit but comparatively weak electrical manifestations.

### The Detector Plan.

"The plan provides for the following features: An aerial frame, a spark gap, a coherer and condenser, a ground connection, a combined bell and de-coherer, together with a relay, two batteries and a short circuiting switch. "In receiving messages from storm headquarters due regard has to be given potential interference by wireless messages on their way between political and commercial headquarters. The spark gap provides security against any such unneighborly proceeding, as the spherical terminals are one-sixteenth of an inch apart.

"In common with earlier specimens in wireless telegraphy the coherer consists of a short small bore tube of glass containing nickel silver filings between German silver plugs. The bell, one of single stroke connection, is so mounted that its clapper will back strike the coherer tube. The high resistance of the coherer impulse is lost upon a storm passing, whereat steady current flows through from its battery, causing the tap. High resistance is then promptly restored by the return of the clapper jarring the filings, and everything is in readiness to announce another storm impulse.

### Short Circuit System.

"In the present case the inserting of a condenser was made to prevent the flowing of direct current, though in other instances it could be left out. The necessity of a short circuiting arrangement appears in the protection of the set when the storm is about to break.

"The action of the device is most interesting to watch. Experience shows that a storm a few hours distant causes the bell to tap every fifteen to five minutes. On coming nearer, say two hours before breaking, the storm records itself in minute or half minute taps. For a full hour before the climax the bell rings continually, then stops abruptly as the set on the breaking of the storm is short circuited.

"By this time not only the vast residential and theater section, but every office and loft building is a-sparkle with lights through the rain. Long before, however, everything at the generating station was in readiness, boilers firing up and turbines throbbing, provisions making these little emergencies mere incidents in the round of central station routine."

### IS YOUR SUIT BUILT OF TIN?

May Be Wood, Glass, Sweepings or Cotton, Tailors Warn.

Your new, all wool suit is quite likely to be of pure vegetable origin or may even be constructed of tin or of almost any material but wool, according to a warning by the directors of the National Merchant Tailors' association in annual convention in Chicago. The association is getting ready a pure wool bill to be submitted to congress.

According to the tailors, the bargain suit may be of tin shavings, wood pulp and wood fiber twisted to resemble silk threads, spun glass, wool cardings, sweepings forced into an open cotton mesh by pneumatic pressure or of jute, cotton or hemp.

### Editor Gets a Warning.

Ernest Judet, editor of the Paris Eclair, criticised the censorship, and the censors have notified him they will refuse to read his proofs hereafter, and if he publishes a line contrary to law he will have to take the consequences.