

# SELENIUM IS "MAGIC EYE" WHICH "SEES" HUNDREDS OF MILES; CONTROLS TORPEDOES

## YOUNG SCIENTIST PREDICTS MARVELOUS RESULTS FROM EXPERIMENTATIONS WITH SELENIUM; POINTS TO "ELECTRIC DOG" AS MINOR EXAMPLE OF ITS POSSIBILITIES

(By Kenneth W. Payne.)  
La Fayette, Ind., March 5.

After seeing young Benjamin Franklin Miessner's "electric dog"—a small glass-eyed box on three wheels—actually pursue his master about the room; after hearing Miessner predict that in time men in San Francisco will be able to witness a prize fight in Australia; after seeing a flattened bullet with which Miessner nearly killed himself while perfecting a magic "thief catcher"; after hearing him say that right now he could guide an absolutely unmanned Zeppelin from a boat in the English channel on a raid over coast towns; and after—

Well naturally after all this voyage into the land of miracles, one is too thrilled and dazed to know how to begin writing a story in a conservative, unenthusiastic way.

Yet this story must be told, for it concerns some extraordinary experiments with the element selenium, which are taking place right under our noses in America today, and about which, in spite of their vast significance, only a few scientists know anything at all as yet.

Let's begin at the beginning, with selenium.

"It's one of the elements," Miessner explained. "It comes in bluish-gray sticks which look like sealing wax; and it costs about \$3 an ounce.

"Selenium has the peculiar property of changing its electrical resistance when influenced by light. That's the simple secret of all the weird things that scientists are doing with it."

Miessner is only 25 years old now, a graduate of the Huntingburg, Ind., high school, and of Uncle Sam's navy. After serving three years in the radio-telegraphic department of the navy, he worked for two years with John Hays Hammond, Jr., at the interesting job of steering deserted ships all over Gloucester harbor from a wireless station on shore.

Now Miessner is studying for a degree at Purdue University—and incidentally telling his learned professors a few things about radio-telegraphy and electrical engineering which they never heard before.

**His Electric Dog**  
To illustrate his experiments, Miessner called his electric dog. From an electric flash hethrew a bright light in the dog's goggle eyes, and the strange object at once ambled obediently out toward his master. Wherever Miessner went about the room with that light, the dog patiently followed, as inexorably compelled as the moth by the flame.

"The electric dog has two cells of selenium, one behind each of those glass eyes," explained Miessner. "When I throw the light upon him. If it falls upon either eye it reduces the electrical resistance of the selenium, as I explained before and an electrical current is allowed to pass through, starting the motor which turns the dog's wheels. He begins to advance. But if the light comes from the right, say, it hits only the right eye, because of the projecting screen between the eye, then the current passes through that eye only and not through the other. An arrangement of batteries and electromagnets then pulls the little rear wheel to the right and that turns the dog straight toward the light, whereupon it shines in the other eye also, and the current passing through this eye charges an electro-magnet which pulls the little wheel, or rudder, straight again. So you understand, wherever the dog sees a light, he simply has to go.

"Now we can make our electric dog into a 'dog of war.' By simply re-adjusting the mechanism, the two selenium eyes can be made to pursue a dark object amid light surroundings. Suppose a torpedo fitted with such apparatus were launched from shore on a bright day toward an attacking fleet. The battleships would stand up as the only dark objects against the bright sky, and the torpedo would head straight for them with infallible and unescapable precision.

"A change in the mechanism makes it possible to drive your electric dog, or torpedo, or Zeppelin, away from you, by prodding it behind with a searchlight, instead of pulling it toward you."

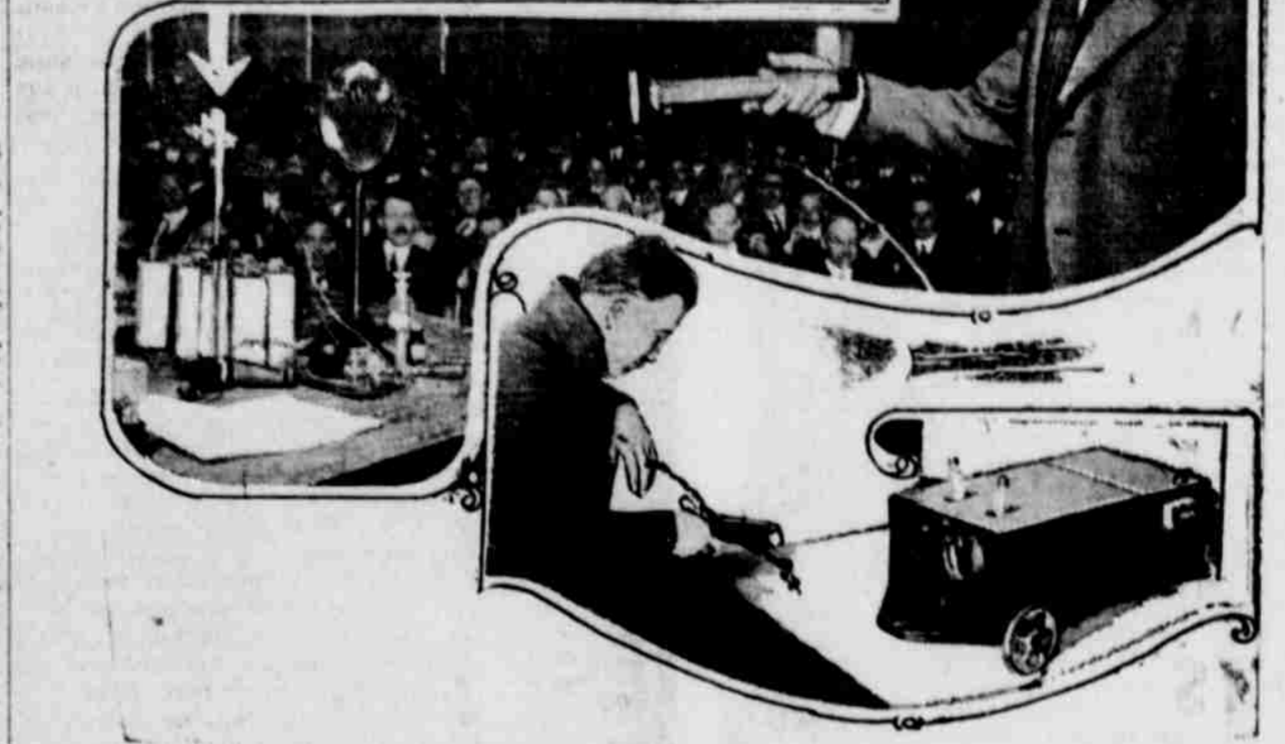
Miessner threw over a switch on his electric dog, and then when he flashed the light on the bulging eyes the dog promptly, almost fearfully backed away.

The marvelous seeing-at-a-distance projects of which Miessner talks, are based also on the light sensitivity of selenium, the "magic eye." The apparatus consists roughly of a great "compound eye," composed of some ten thousand selenium cells, each cell connected with a similarly situated glow-lamp on the receiving apparatus. The selenium cells are unequally illuminated by the light which falls on them from the objects within their range of vision; thus allowing currents of varying strength to pass through, they will light their respective glow lamps in exact reproduction of the light and shadow of the objects before them.

"By a somewhat similar apparatus, photographs have actually been transmitted by wire from Monte Carlo to Paris, and published in the papers," Miessner commented.

The selenium thief-catcher invented by Miessner consists of a selenium

cell with guns, bells, a camera and flashlight. As soon as the light of the burglar's dark lantern hits the selenium eye, the whole array of noise makers go off in one grand hubbub. The thing's practical, because Miessner tried it out before a meeting of the Electric club, in Chicago, recently, and nearly frightened the club out of its wits, besides taking a very good photograph of himself.



indefinite as to dates and somewhat contradictory when compared to that of her mother and father. She testified that Martin made threats against Hubbard, the purport being that the defendant would kill him.

Boyd Tucker, Henry Morgan and Robert Dawson, who worked on an irrigation ditch with Martin, all testified they heard the prisoner say: "I don't think Hubbard will ever bother me again."

**"Would Get Hubbard"**  
Fred Middlebush, a 14-year-old boy, testified that one Sunday morning while talking with Martin in the road the latter told him that he would "get Hubbard." He testified that his people were not friendly with Martin's relatives, but denied that it included Loris. The bad feeling began over a change in postmasters a couple of years ago, in which Martin is said to have played an important part.

Justice of the Peace Glenn O. Taylor, who issued the search warrant to Hubbard, was the last witness of the day. He produced an affidavit of

search, and this brought out a ruling by the court, holding that the validity of the warrant, which was attacked by the defense, was not pertinent, the contention being that Hubbard believed it valid, and Martin knew of it. Technical points involving the search of the cabin were brought out by the defense. The court held that if Martin had reason, based upon the actions of Hubbard, to believe he was in danger of his life, then there was a basis for a plea of self-defense.

Attorney Reames was overruled in his plea to have the search warrant and affidavit barred.

**STATE RESTS IN MARTIN CASE**  
(Continued from page five)

him for having deer meat in his possession, at the time his wife was ill. During the recital he broke down and

cried. Martin also wept in sympathy. He stated that Hubbard afterwards came up and shook hands with him and had been friendly since. Hubbard had told him that he intended to arrest Martin also.

C. Fisher of Engle Point told how Hubbard had told him, he intended to catch him for shooting deer, and how Hubbard had tried to secure evidence against him and failed. He stated that he and Hubbard were friendly and that he always joked Hubbard about his efforts. Hubbard had told him he intended to catch Martin and other violators.

A demonstration by the crowd during Pence's cross-examination by Prosecutor Kelly resulted in a threat by the court to clear the room if such an expression was again made.

With Medford trade is Medford made.

## BELGIANS PROTEST GERMAN SEIZURE BELGIAN PLANTS

WASHINGTON, March 5.—The Belgian legation issued today a formal statement announcing the protest of the federation of Belgian steel and iron manufacturers to the German governor general in Belgium against the seizure of more than \$3,000,000 worth of machinery which, the statement declares, was taken in violation of the Fourth Hague convention. The announcement states that the German action "practically nullifies the efforts," which Belgian industries are making to resume their activities. The German authorities are further accused of exporting raw material from Belgium into Germany.

"It is easy to understand that such measures practically nullify the efforts made in industrial circles to resume work in the Belgian plants and thus save from starvation many hundreds of thousands of workmen and their families," says the legation statement. "Besides it will seriously hamper the resumption of work when the war is over."

"The Belgian government strongly protests against these measures which constitute a clear violation of article 53 of the regulations annexed to the IV Hague convention, which provides that tools and machinery, if private

property, can never be seized in an occupied country."

## To Cure Catarrh Purify the Blood

Reason it Out, Where Does it Start the Mucus From?



Innumerable catarrh sufferers have cured themselves by purifying their blood with R. R. Catarrh often invades the entire system before it chokes the nasal passages. It becomes so chronic and extensive that the stomach, liver, kidneys, bronchial tubes and most of the glands are involved without such serious conditions being realized. Catarrh may be the result of some serious blood trouble of former years, and this is only one of the many peculiar effects of impure blood. Now R. R. S. in its influence upon the mucous surfaces, causes those catarrhal secretions to be changed or converted into a substance easily, quickly, and naturally expelled from the body. It so changes this mucus that it is not theropy, clogging stuff that plugs the nose, chokes the throat, causes severe bowel trouble, upsets the stomach and contaminates the food just entering the blood. It is often difficult to convince catarrh sufferers that chronic cough, chest pains, sneezing, fetid breath and other symptoms are only the local evidence of deep seated trouble. Get a bottle of R. R. S. today and try it. You will get good results, real benefit and soon be aware of a gradual cleaning up and a check to the progress and dangers of catarrh. Avoid substitutes. R. R. S. is prepared only by The Swift Specific Co., 61 Swift Bldg., Atlanta, Ga. They conduct a medical department for free advice that is worth while consulting.

## Freckle-Face

Now Is the Time to Get Rid of Those Ugly Spots.

Do you know how easy it is to remove those ugly spots so that no one will call you freckle-face?

Simply get an ounce of othine, double strength, from your druggist, and a few applications should show you how easy it is to rid yourself of freckles and get a beautiful complexion. The sun and winds of February and March have a strong tendency to bring out freckles, and as a result more othine is sold in these months. Be sure to ask for the double strength othine, as this is sold under guarantee of money back if it fails to remove the freckles.—Adv.

## FIGURES COUNT

Before you have vehicle equipped with rubber tires, auto wheels or bodies built or repaired, or any kind of wagon work done it will pay you to figure with

## BILLINGS Wagon Carriage and Auto Works

He has had 22 year's experience in his line and guarantees his work. Corner Riverside and Eighth

## AT ONCE! STOPS STOMACH MISERY AND INDIGESTION

Do some foods you eat hit back—taste good, but work badly; ferment into stubborn lumps and cause a sick, sour, gassy stomach? Now, Mr. or Mrs. Dyspeptic, get this down: Pape's Diapepsin digests everything, leaving nothing to sour and upset you. There never was anything so safely quick, so certainly effective. No difference how badly your stomach is disordered, you will get happy relief in five minutes, but what pleases you most is that it strengthens and regulates your stomach so that you can eat your favorite foods without fear.

Most remedies give you relief sometimes—they are slow, but not sure. "Pape's Diapepsin" is quick, positive and puts your stomach in a healthy condition so that misery won't come back.

You feel different as soon as "Pape's" Diapepsin comes in contact with the stomach—distress just vanishes—your stomach gets sweet, no gases, no eruptions of undigested food, your head clears and you feel fine.

Go now, make the best investment you ever made, by getting a large 50-cent case of Pape's Diapepsin from any drug store. You realize in five minutes how needless it is to suffer from indigestion dyspepsia or any stomach disorder.—Adv.

# New Spring Apparel In Great Profusion

**NEW VEILS JUST RECEIVED**  
A beautiful new line of Made-Up Veils on sale Saturday at, each..... **69c**



## NOTIONS

Save Money Saturday. Clark's O. N. T. Spool Cotton at **7 for 25c**  
Colgate's Taleum Powder, 25c cans, Saturday, can..... **15c**  
Lustre Cotton and Sans Silk, ball..... **4c**  
Hair Ribbon, all colors and widths, Saturday, **10c** yard.  
New Waist Cords, special, each..... **15c**

# MANN'S THE WOMEN'S STORE

**BUY YOUR NEW SUIT NOW**  
25 Brand New Spring Suits, as good as others, ask \$25 for, our price..... **\$18**  
25 New La Vogue Suits, very snappy styles, the best suit made, \$25 for..... **\$25**

**BUY YOUR NEW COAT NOW**  
New Sport Coats in a large variety of styles and colors, special, each **\$9.98**  
New Spring Coats, La Vogue styles, new colors, on sale Saturday, **\$13.50**

**NEW LINE OF CHILDREN'S DRESSES**  
50 Brand New Gingham Dresses, sizes 6 to 14 yrs., all this season's styles, worth \$1.00, on sale Sat., each..... **69c**  
50 Gingham Dresses sizes 6 to 14 years, made in up-to-date styles, fast colors, worth \$1.50, on sale Saturday, each..... **98c**

Rah-Rah Hats for children, all colors, on sale Saturday at, each..... **69c**

**MUSLIN UNDERWEAR SPECIALS**  
New Corset Covers, nicely trimmed, **29c** special, each.....  
Night Gowns, made of fine lingerie cloth, very special, now at, **59c** each.  
Beautiful New Combination Suits, well made and nicely trimmed, now, each..... **98c**

**NEW NECKWEAR**  
Dainty new Organdie Collars, latest styles, on sale Saturday at, each..... **29c**  
Beautiful new Collar and Cuff Sets on sale Saturday, set..... **69c**

**Spring Hosiery**  
Our new stock is now on display, every pair guaranteed.

Women's and Children's Fast Black Hose on sale Saturday at, a pair..... **10c**  
Boys' and Girls' Heavy School Hose, very special, pair..... **15c**

Our famous Lavender Top Hose, for women, pair..... **50c**  
Silk Hose for women, in black and colors, very special, per pair..... **50c**  
The best values in Lisle Hose, pair..... **25c**

"Mary Pickford" Caps, the latest fad, on sale Saturday at, each..... **\$1.25**

**DRESS GOODS SPECIALS**  
New Silk Poppins, 24 in. wide, 75c values, now, yard..... **48c**  
18-inch Messaline Silk, full line of colors, 75c values, yard..... **48c**  
38-inch All-Wool Serge, new shades, 75c values, yard..... **48c**

**FOR SALE**  
**E. M. F. Studebaker Auto, 1911 Model**  
IN GOOD RUNNING ORDER  
NEW REAR TIRES  
**\$250**  
Crater Lake Motor Car Co.