

ELECTRIFIED SCHOOLROOM TO BRIGHTEN DULL PUPILS

Experiment Will Be Tried in New York with Superintendent Maxwell's Consent to See if High Potential Currents Will Help Defectives--Remarkable Results Reported Abroad.

cause the man was learning; but after watching him closely he discovered that his assistant's quickness was much deeper than merely learning to make the tests. His mental life had been stimulated, and instead of being slow to learn, as at first, he now showed remarkable acumen.

and so marks an epoch in our methods of handling school children.

The question of a possible deleterious after-effect has, of course, been the crucial one on which opposition to the work has hinged. However, it is the consensus among psychological experts and electro-therapists that there is ab-

of the other room. Fifteen pupils in the electrified room were marked 100 by their teacher, while only nine obtained perfect ratings in the other class.

The report continues that the electrified children appeared generally more active and less subject to fatigue than

generated. Carefully insulated wires will be inserted in the walls of the experimenting classroom and the tests will be carried on without the knowledge either of the teachers or the pupils. The air of the room will be completely saturated with incalculable millions of infinitesimal electric waves vibrating at a frequency so great as to be unimagable and capable of measurement only by a most delicate volt meter.

The experts find that the higher the voltage and the lower the amperage the less harmful is the electric wave. High frequency currents never kill.

and women, the men are the most stupid and the brightest. In the scale of mental ability the women will occupy an average position."

In a series of tests carried out last year by Dr. Blan on school children of the City of New York, he discovered this new fact with respect to the position of women in the scale of mental ability by taking as his criteria the records of promotion and repetition for the boys and the girls. He found that on the average boys were brighter than girls, and that they were also more stupid. Girls occupied a middle position between the two extremes of intelligence represented by the two divisions of the group of boys.

In relating this fact to the application of high frequency currents, Dr. Blan said that in so far as the girls are more sensitive to the electric wave than the boys, the electric friction by means of high frequency currents will tend to raise the girls from their average position in the scale of intelligence into the class occupied by the exceptional boys.

Mr. Tesla was asked to make a state-



Supt. W. F. Maxwell of New York's Public Schools.

NEW YORK will try an experiment next Fall which, if successful, will completely overturn all methods hitherto applied in its schools and introduce a new era in education.

It is so sensational that, at first sight, it seems like the impossible dream of a mad inventor. Yet it has the thorough approval of men who are by no means identified with anything sensational and impractical, among them Superintendent of Schools William H. Maxwell and Dr. Louis Blan of Columbia University, while the inventor of the scheme, Nikola Tesla, can point for corroboration of what he claims, to the extremely successful results already obtained by means of his invention in the schools of Stockholm, capital of Sweden.

Currents in the Walls.

Fifty mentally defective school children will be the first subjects of the experiment. They will enter and seat themselves in what will look, to all intents and purposes, like an ordinary schoolroom. But it will be far from that. Through the walls invisible electrical currents will run, by means of which, it is declared, the brains of the children will receive artificial stimulation to such an extent that they will be transformed from dunces into star pupils.

Six months is the time limit set for the experiment. At the end of that period, if the inventor and those who have studied his work are to be believed, the fifty backward pupils will leave the electric schoolroom and hold their own thenceforth with ease against their cleverest comrades, whom they had never even dreamed of emulating six months before.

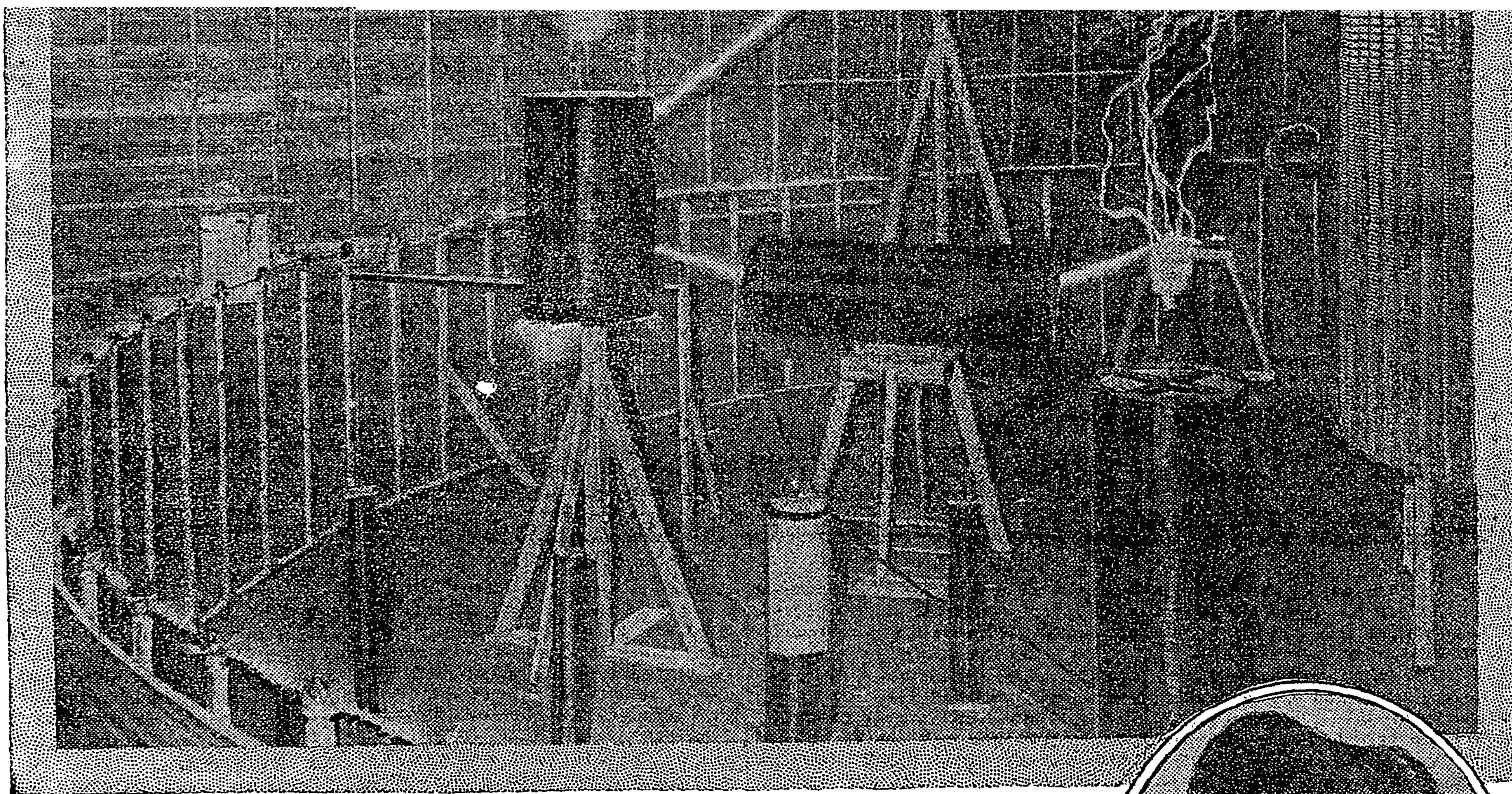
The work is to be in charge of Mr. Tesla, who, by means of the Tesla electric coil, secreted in the walls of the classroom, will permeate its atmosphere with high frequency electric currents. It is expected that Dr. S. H. Monnell of Chicago, famous as an electro-therapist, will volunteer his services in carefully examining the children before, during, and after their exposure to the high-voltage current. Dr. Blan will assist him by making a record of the progress of each case.

City Superintendent of Schools William H. Maxwell said in confirming the report that the experiments are to be made:

"I am convinced that the high-frequency current has no deleterious effect; that, on the contrary, it is positively beneficial, and that the experimental tests should be and in all probability will be carried out in the Fall."

Cost of the Apparatus.

The cost of installing the apparatus and properly applying the tests is \$10,000. Several men, including a New York philanthropist, have offered the amount. At the same time Mr. Tesla hopes himself to be able to finance this first experiment, and when its advantages are demonstrated, to then allow some interested person to step in and install appliances in every schoolroom of the city. All school children, both normal and defective, would then be subject during their classroom periods



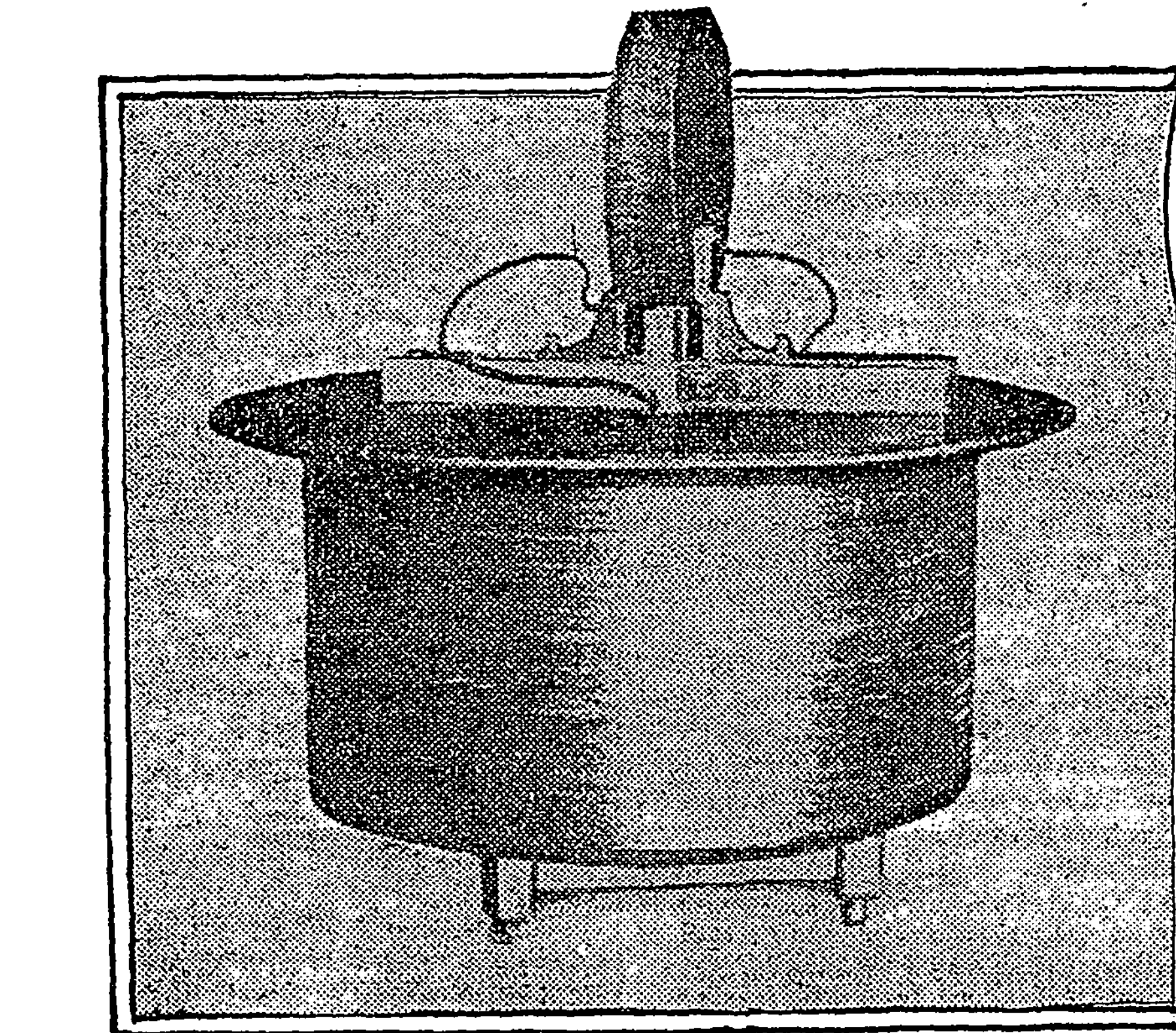
Coils for the Transmission of the High Frequency Current. Photograph Represents a Powerful Machine. Effect Will Be Much Modified in a Schoolroom.

to the stimulation of this pervasive high-frequency current. When asked about the cost of such a project, Mr. Tesla replied that it would be very moderate, about \$100 to install the apparatus in each room.

Use May Become General.

According to the inventor this experiment in the schools will be merely an opening wedge, a suggestion to the people that by the use of high potential electricity they may do away with the use of bromides, phosphates, pepsin tablets, and all kinds of drugs taken for disorders of the nervous and digestive systems. If his dream comes true, ten years from now people will inquire when renting an apartment or a house, "Is it electrified?" Every one will have at least one room in his house furnished with a coil generating high-frequency currents. By that time the appliances will be inexpensive, so that at a moderate cost people will be able to obtain superb health and mental brilliancy. Ordinary conversation will then be carried on in scintillating epigrams, and the mental life of the average adult will be so quickened as to equal the brain activity of the most brilliant people living before the time when a generator of high-frequency currents was a household essential.

Leading experimental psychologists assert that the high-frequency current intensifies cerebration. It is a mental stimulant, just as alcohol is a mental stimulant, the difference being that the electricity is harmless and confers lasting benefits. It is related that during certain high-frequency tests performed by Mr. Tesla one of his assistants was exceedingly stupid in carrying out instructions concerning the laboratory adjustments. The laboratory was equipped with a coil generating high voltage currents. After a time Mr. Tesla noticed that the man grew brighter and did his work better. He supposed for time that this was be-



Form of Apparatus to be Used in a Schoolroom.

The tests made on school children in Europe were with the Tesla apparatus, and were carried on under the supervision of Prof. Svante Arrhenius at Stockholm, Sweden. The results were watched with keen interest by scientists, especially psychologists, in the United States, for, although scientific experimenting with school children is customary in Europe, it has as yet been untried in this country.

Suspicion of Experiments.

As Dr. Blan pointed out, over here there has until recently been a suspicious attitude on the part of people with reference to experiments of an elaborate nature performed on school children. Fear of deleterious effects has had something to do with this, as well as a general skepticism, on the part of educators, of the value of such tests. In this respect we in America have been far behind Europe, and especially Scandinavia, which is one of the most advanced countries in the world in its educational methods. The experiment about to be performed in the Fall in New York City will be the first of its kind in the United States,

absolutely no danger attending such experimentation.

The Stockholm Experiment.

In Stockholm two sets of fifty children, each, averaging the same age and physical condition, were placed in separate class rooms, exactly alike except for the concealed wires installed in the walls of one of the rooms. The regular school work was pursued and the test lasted for six months. Frequent observations of the children were recorded to ascertain the effect of the high-frequency waves upon them. At the end of the experimental period the children in the magnetized room, according to the official report, showed an increase in stature of two and a half inches, while in the unmagnetized room the average increase was only one and one-fourth inches. The pupils in the electrified room likewise showed a weight increase and proportionate physical development greater than that of the children in the other.

On the mental side, according to this report, the children exposed to the electric waves averaged 92 per cent. in their school work, as opposed to an average of 75 per cent. in the children



Nikola Tesla.

those that were not electrified, and that the teachers also experienced from the treatment a quickening of the faculties as well as an increase of powers of endurance.

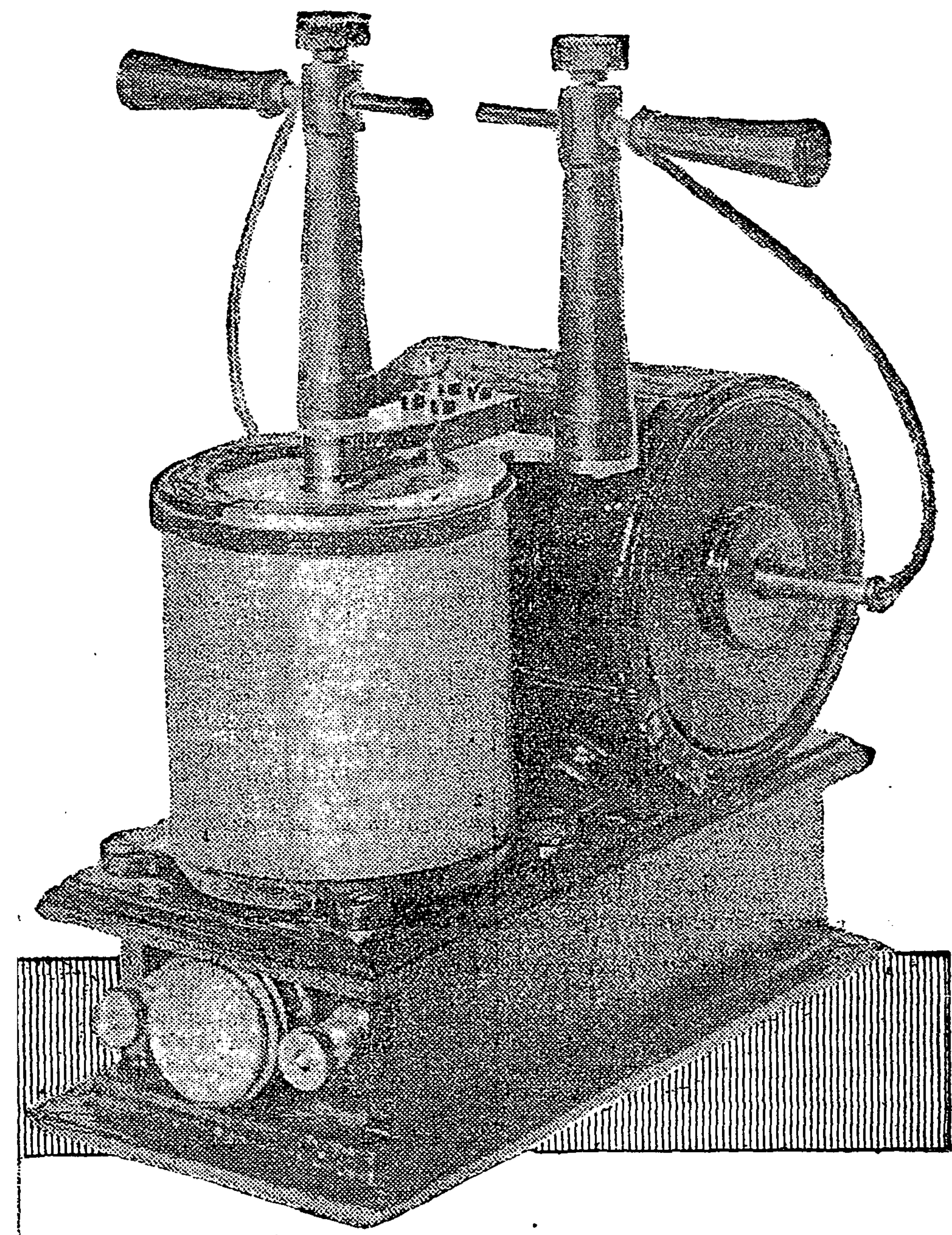
Abroad these scientific tests are as likely to be made on average children as on defectives. In fact, the tests in Sweden were applied on normal pupils.

"Here," comments Dr. Blan, "the custom seems to be to try everything on the goat first, and so sub-normal or defective children are to be used, whereas it would be just as well, perhaps even better, to electrify normal children and note the results."

When asked if there were any injurious effects whatsoever from high frequency electricity, Mr. Tesla replied that the effects of the rays of light issuing from the ordinary incandescent lamps in our houses were positively more harmful than those proceeding from the high potential coil. He added that the increasing prevalence of baldness may be largely due to the effect on the scalp of the electric rays from incandescent lamps.

Details of the Apparatus.

The apparatus is called the Tesla coil from its inventor. It consists of a primary made up of a few turns of coarse wire, and differs from the official coil of the X-ray machine largely in this coarseness of the primary. Whereas, using the X-ray coil, one may obtain from 50 to 150,000 volts, with the Tesla coil millions of volts may be



Instrument for Electrification Used by Physicians.

The low frequency currents with high amperage are the kind used in executions. The X-rays, produced by high-frequency currents, but through specially devised tubes, are, as is well known, injurious. They are of lower frequency than the currents generated by the Tesla coil. The X-ray passes through the body like a bullet and actually makes microscopic holes. The high frequency currents from the Tesla apparatus do not pass through the body, but bathe it and permeate it very much as does alcohol when rubbed on the skin.

The fifty defective New York children who will be subjected to the experiment will in reality have an electric bath lasting for six months.

Dr. J. P. Sutherland, Dean of the Boston University School of Medicine, says: "I have been interested for some time in the subject of high frequency electricity, particularly in the effect of high frequency currents on metabolism, (that is, tissue-change.) My work has been confined almost wholly to adults. High frequency currents produce ozone, the properties of which as a tonic and a stimulant are well known. Although the effect of the current on the human body is not thoroughly understood as yet, it has a decided effect on its chemical processes."

Prof. Sutherland also predicts that one of these days the high frequency current will be a commonplace in the home. He says further that it is now possible to imbue persons with this electric tonic without their coming in contact with any apparatus whatever, or their even knowing that they are being exposed to the electrifying process.

Electricity's Effect on Women.

The effect of electricity upon women as compared to men leads to some interesting comments from Dr. Blan. "Women," he says, "are more sensitive to the electric wave than are men because of their inherent organic constitution. Women's hearts are smaller and pulsate more rapidly; their brains are smaller and their skin is thinner, which explains their shorter time reaction to electric stimulus."

"Further, women in their mental traits are more variable than men. This has been demonstrated by leading psychologists throughout the country, among them P. B. Thompson, a brilliant woman psychologist from the University of Chicago, who has written a book on 'The Mental Traits of Sex.' This means that in any random choice or selection of a group of men

ment as to the manner in which his electrical experiments with the school children were to be carried out. He replied:

"The high frequency currents can be applied in three distinct ways. One is to pass the currents directly through the body, bringing the part to be treated in contact with the terminal or source of the current. Another way is to establish an electrostatic field in the room and expose the person to the influence of the alternating stresses of high potential. The third way is to act on the person by induction."

"When the experiment is made in this city the electricity will be applied in all three ways, but the third method will in all probability be given greatest prominence. In this case a cable will be laid around the room and high frequency currents passed through the same, creating a rapid-changing electro-magnetic field. The experiment in Stockholm was performed in this manner. The apparatus was in all essentials the same as the one I used in this city many years ago when I had an installment of that kind in continuous use."

Mr. Tesla said further that it was not essential to the success of the tests that the wires be hidden or that the work be done without the knowledge of the teachers and the pupils, but nevertheless it would be done secretly so as to properly compare results with the experiment of Prof. Arrhenius.

No Danger to the Pupils.

When asked if there would be danger if for some reason or other the current passing through the cable were too strong, the inventor said no, and continued: "The apparatus is so designed that this will never happen. Yet, even if the current were a thousandfold increased, no untoward effect would result. I have frequently, in the presence of visitors in my own laboratory, energized a loop of wire with high frequency currents so strongly that when a piece of metal, such, for instance, as a sheet of tin, was approached to the loop, it was melted instantly, and the process of melting was so instantaneous that the metal would explode with the report of a gun. Into this same loop of wire so energized that the metal near it would come to white heat, melt, and burst with a report. I have repeatedly thrust my head and felt no inconvenience. My explanation is that human tissues act as electrical condensers, which means that the heating effect such as is produced in a conductor is excluded."