Study of Electrons

A true and complete better understanding of the things about us depends largely upon research. The knowledge of the behavior of the electron which is so vital to our modern conception of the atom, is further lighted and clarified in this direction.

When electrons, or little units of negative electricity, flow within a wire, they create electric current. When, by high temperature, they are emitted from metal, they are called atoms. When they pass through gas with sufficient voltage they attract molecules, atoms, and the greatly increased flow of the resultant charged particles produce light and heat. When they flow through a vacuum, under the influence of a high electric field, they are called X-rays.

The questions of the last paragraph are so complex that they are not discussed in detail. The latter comments on this subject are made by the author, Dr. E. H. Thompson.

Fire Near Phi Pi House

The boys at Phi Pi were preparing to return to their dormitory by eight when the fire bell rang. It was Mrs. Robinson, the mother of Robinson 20, who first discovered the fire in the new apartment house on the corner of Park and Washington St. The fire was stopped by the electrical wires. The electrical wires were farther than the fire, and the current was cut off by the electric meter, which in turn activated the fire alarm, thus giving the alarm to the fire house and the emergency squad.

Lowell Textile to Have Best Baseball Team in the History of the Institution

Coach Robert Gandy is busy developing his team for the 1924 season. His team, which is less than two weeks old, is already making good progress. The team is being trained by a special coach, chosen for the purpose of giving the players the best instruction possible. The team is expected to do well in the coming season.

Freshman Dance, April 13th

At 8:00 p.m., Thursday, April 13th, the Freshman Class will hold a dance to raise money for the Athletic Association. The dance is to be held at the Lowell Textile School and will feature music by the Lowell Textile Band.

History of Basketball at Textile and the Successful Season of Textile's Quarter for 1923

Now that the basketball season is over, we can look back over the course of events and see how the game has progressed. The game of basketball was introduced at Lowell Textile School in 1923, and was immediately popular among students and faculty. The game continued to grow in popularity throughout the school year, and by the end of the season, the school had a dedicated team of players who were eager to compete.

Member of Alumni Weds

On Saturday, April 17, Miss Doris Simmons Fairbanks, daughter of Mr. and Mrs. Doris E. Fairbanks of Soquel, was married to the Rev. G. H. Hinman of Soquel. The wedding took place in the beautiful St. John's Church in Soquel, and was attended by many friends of the couple. The happy couple will make their home in Soquel, where they will be surrounded by the love and support of family and friends.

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Much Ado About Nothing

BY C. H. HUNTER

It seems strange that scientific discoveries of the utmost practical value, have been made by study in vacuum. There are those who might expect to find the heat and the light of the sun; and there those who might expect to find the universe. In this way, we have not been able to say that we have a clear understanding of all possibilities, or that we have an infinite field of unknowns.

The average person has the false conception of the vacuum as being a void. He may have read of the vanishing number of molecules of air which remain in a well exhausted pump bulb (and he has possibly been told that if every one of these molecules left the air he would be able to do so) for a few years of such many wonderful things could be done with it. Undoubtedly, it doesn’t mean much in his young life.

Of what real good is a vacuum, and what is being done with it?

Begin with the bulb of the modern tungsten filament Mazda lamp. The reason for pumping the air out of the bulb is to prevent the filament from burning up by oxidation, or by combining chemically with the air, and, secondly, because vacuum is an excellent heat insulator. Having a good heat insulator inside the bulb makes it possible to increase the temperature of the filament.

The better the filament can be made to hold, within limits, the brighter light we get out of it. Vacuum will then be seen also play an important role in producing better light.

In continuing the study of how to get higher and higher efficiencies out of the Mazda lamp, the Menlo Laboratory of the General Electric Company has attempted to introduce into the lamp bulb a jet of inert gas which would not stick to the filament. It had been discovered that the tungsten filament under a high temperature slowly evaporated away much as water evaporates. The introduction of the inert gas into the lamp bulb checked materially the internal or filament and made it possible to form the filament to much higher temperatures. This gives a brighter light. At the same time, the gas served as a heat conductor which spread the heat out over the bulb, but with concentrated filament the gain in light, because of the higher temperature, was greater than the increase in heat, so the resulting efficiency was higher. In the case of the gas-filled lamp, the steel was removed from the bulb before the jet gas introduced, for the presence of oxygen in the air would destroy the vacuum. This would damage the filament and make it impossible to hold the filament to much higher temperatures. This gives a brighter light.

THUS WITHOUT THE VACUUM the filament would crumble and the vacuum would be of no use.

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THE TEXT
History of Basketball at Textile and the Successful Season of Textile's Quintet for 1923

(Continued from Page 4)

seven out of fourteen games played, while this year, playing a harder schedule that the previous season, we came through with seven victories and eight defeats, at least four of these defeats being lost by this small margin of one point.

The school was fortunate in securing the services of Bobb Perry, the former star forward of New Hampshire State. Perry was a three-letter man at N. H. State and was picked for the mythical All-New England five in 1921-22.

The loss of Mathews, Sanchez, and Schneider left a hole in the team which was hard to fill. Hart and McKiss was available from last year's substitutes in the forward position, while Perry, a freewheeling, all-at-the-middle player, hastened to the bench. Lombard, Smith, and Farrell formed the nucleus around which the team was built. Outside of Perry there was no material of note which could be rounded out for a forward line. The team got away to a poor start by losing the first three games. First to Fitchburg, then to M. S. State at Durham and then in a two-game schedule with Providence, which was far from the best of several teams we defeated.

Next game Fall River River, which we defeated by the one-sided score of 46 to 12. New Bedford was to be the test. I imagine they cancelled after reading the score of the Fall River game, for they refused to come to S. H.

We defeated Brooklyn Polytechnic next 35 to 33, with the second team carrying the attack for nearly one-half the game. Fitchburg defeated us again in their conference, this time by a much smaller score than the previous defeat.

The team was fast rounding into shape and the combination of Smith, Perry, Farrell, Lombard, Hart, and McKiss was beginning to develop some speed and control. Mass. Institute of Technology was an easy game and good practice before meeting the fast Northwestern five in Boston. This proved a very fast game with Textile taking the long end of the score, 62 to 23. The northern trip next was to Middlebury College was the first night after an all day train journey. Middlebury was formidable, taking the game by a bare three baskets. On to Northfield, VT, the next day to play North-

well gone and N. H. who was trailing 11 to 10, began to creep up until at the second half was full of thrills. With Perry back in the game things looked good for our Textile, but N. H. was not to be delayed and they took the game by a 28 to 23 score.

McKiss who was with the record mentioned above, Rhodes Island State made up for their defeat in football by bating us on our courts by the close score of 36 to 31.

Norwich closed our season by a return game on our court and another sound thrashing at the hands of the end and block.

One of the things that has characterized our whole season was a steady appearance in this last game. With the going sup- posedly settled we were able to fight. The first half the team came from the back door the final period with a single on-one volley. Result: another losing streak.

The team of the Norwich team was that team to make us take our team from their key and cause them to play harder half come on. The last ten minutes they did play harder half and boosted the score to 33 to 29 in favor of Norwich.

The game is not won until the final whistle, no matter how evident an oppo-

tent may be. It takes only five baskets to make ten points and those ten points may make a greatly ridden team in any comfortable lead. May next year’s most

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MIKE was the fastest worker with the green stuff that I ever knew, and besides doing his own thinking in nothing flat he could look you over and tell you just what you were going to do five minutes before you would make up your mind to do anything. Joe Woodhead claimed that he once saw Mike, with his mind so focused on crystal star gear, but he was noticing this. It was born in him and developed before he came to Textile and it appeared as a disease known as "Rambledue." 

Mike was in one of those medium built fellows who has some strength and power left over for a man that young. I've seen that happened to many a lad in that household called Duke Royer who peruses around the school library wire. Mike was every inch of the man, and of course a formal party would call dressing quite a male and a strike that matched his legs, hands, and brains. Mike put along on you he just drains over your desk. Let's go back a little. He blew into Chi's office yesterday about the dark ages. "I demmison," says Mike, "Your President Emeritus, isn't he glad to meet such a fellow as you?" We are. Now let's get out to the next dope for a minute.

"What do you want?" Charlie asks.

"Very well," comes from Mike in answer to his question, "just about me around this joint and I tried a couple of the courses and I'll pick a special one to suit myself.

Charlie wasn't in any hurry for kidding before a baby man so he says, "First study!"

"Not very hard," says Mike.

"What do you do? Kill time?" (brain)

"Brain," Mike answers. "Not mine so much as my instructor's. Follow me?"

He continues without waiting for an answer. "Every man has a notch part in his head and maybe I have one too.

Charlie looked blank for a while and didn't say anything.

All of a sudden Mike busts in. "Parson, but you have an awful slow mind. I am almost through with my studies."

"Yes! Is that so?" asks Rakes. What's it doing.

"Very little," Mike grins. "Wasting it's time trying to imagine that you would like to throw me out."


"You don't seem to understand," says Mike, "I'm offering you a chance to educate further the best brain in United States.

'I don't know," says Charlie, "I'll let you stay for a while."

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IV.

It got to be an old story seeing Mike up there. However a few months, and he had the whole family working on his dope, but to Mike things were getting monotonous as a three week job of maple sugaring. But Demison was getting tired of his game by this time for he had made a few hobby horses and was looking about for a more careful. So they were also kind of glad to see him start spinning around for next week's hand to conquer for his old brain had reserved for us in its power. To hear him talk would you think that brains was something that he learned and had only double time set of them. We all figured that when Jason came along as our we couldn't see any more of Mike, but we were.

Mike spent the spotter firing on a locomotive, because he claimed that one must keep his mind and muscles fit if they want to get their brain working at it.

It's the same old routine when classroom starts again and all the rats like Rodman and Saggers are waltz of Mike because he's doing them all in a few weeks and they did just what they wanted.

However, "Lippy, Louie, also known as "Johnnie" Loyce, is a new one on us and one of the most of greatest looks with his small line of brain that is a main. I see that you have come from England, the land of music and poet, and the great land of precisely American," and so on. It has been with a wind up of a moment, and acts as if he hasn't done it all. "This man's got a face just stays black, and he starts his lecture.

Mike is packing his stuff in great shape as far as words go, but3er does not show any signs of impatience. He's just looking Demison over, and Mike thinks that he has been scared stiff and all balled up because they were being tossed into Johnnie's head they must have settled in the wrong place.

"I'm going to do that," Mike and in two minutes he is down and out, and has forgotten that he had a brain. Every one of us were laughing into the malady that surrounded Mr. Mike and Demison can't do a thing, but just look blank, and every one that was looking wasProgressive. Mike drops himself out of our minds and

"What's happened? Was my train missed?"

"Yes," says the brush. "A couple of dreams of yours had a collision on that funny broken mind of yours," says Bert Sullivan.

"It never failed before," says Mike.

"Run," says Jack Bluebird and laugh.

T. E. S. News

The March meetings of the Textile Engineering Society were as follows:

On the third, Mr. A. A. Northrup of the Union and Webster Company showed a three reel film, the Carbori Hydrotelectrical Development. Among the records lectured from colored slides upon the engineering features of the enterprises.

At the meeting on the nineteenth a free film "From Belt to Cloth" was shown by the Southern Pacific Association of New Orleans, entitled "From Cel to Lumber" was displayed. Huston, a man who talks a short story, was there.

Our outfit will have two veterans back in Sullivan and Valentine, two hard-hitting lawyers. Both are classy leaders as shown by the fact that neither made any more than one gift over the whole of last season.

This year's schedule is the usual Textile ever undertook. From the day we play Holy Cross, April 11th, until the last game with Fitchburg Normal, June 3rd, the team will have to hustle all the time for there isn't an easy game on the schedule.

Eighteen games will be played, five of which are at home and nine away. Memorial Auditorium Concert Bookings

Lowell Textile to Have Beat Baseball Team in the History of the Institution

(Continued from Page 1)

which is readily seen from the fact that he had led the team in hitting for the thirty years.

Textile has no worry about this year's batting for in "Pig" Otsen we have an able pitcher and a timely and finishing batter. The pitcher, by the way, and Charlie Farrell and Jack Blanchard, are an able trio as will be found on my college team. Every one of them has had three years experience here at school and we need have no worry about our batting. In Big Reynolds Textile has a first rate shortstop. Ray can cover an awful lot of territory and is second rate and no one has had a surpassing opinion of the young fellow's rate hit. At the sandwich point Reynolds makes an ideal man for he is a hard man to pitch to, and when they do get it over they can be relied upon.

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