What Is Vacuum?

IF THE traffic policeman did not hold up his hand and control the automobiles and wagons and people there would be collisions, confusion, and little progress in any direction. His business is to direct.

The physicist who tries to obtain a vacuum that is nearly perfect has a problem somewhat like that of the traffic policeman. Air is composed of molecules—billions and billions of them flying about in all directions and often colliding. The physicist’s pump is designed to make the molecules travel in one direction out through the exhaust. The molecules are much too small to be seen even with a microscope, but the pump jogs them along and at least starts them in the right direction.

A perfect vacuum would be one in which there is not a single free molecule.

For over forty years scientists have been trying to pump and jog and herd more molecules out of vessels. There are still in the best vacuum obtainable more molecules per cubic centimeter than there are people in the world, in other words, about two billion. Whenever a new jogging device is invented, it becomes possible to eject a few million more molecules.

The Research Laboratories of the General Electric Company have spent years in trying to pump and jog and herd more molecules out of containers. The chief purpose has been to study the effects obtained, as, for example, the boiling away of metals in a vacuum.

This investigation of high vacua had unexpected results. It became possible to make better X-ray tubes—better because the X-rays could be controlled; to make the electron tubes now so essential in long-range wireless communication more efficient and trustworthy; and to develop an entirely new type of incandescent lamp, one which is filled with a gas and which gives more light than any of the older lamps.

No one can foretell what will be the outcome of research in pure science. New knowledge, new ideas inevitably are gained. And sooner or later this new knowledge, these new ideas find a practical application. For this reason the primary purpose of the Research Laboratories of the General Electric Company is the broadening of human knowledge.

General Electric
General Office Company Schenectady, N.Y.
The new curriculum which was adopted by the Faculty Substitute New Courses for Old.

The present curriculum of St. Stephen's College was changed and added to at a faculty meeting held on December 20th, 1920. The new curriculum which was adopted by the Faculty and which is effective at once, is as follows:

One degree will be given by the college—the B.A. degree—for anyone of three courses, literary, classical, or scientific. Each course has a humanistic and cultural background. The first two years of study are almost the same as under the older curriculum, but in the last two years of study men may specialize in the classes in literature, history, sociology, or in laboratory science. The new classical course is designed primarily for those who want a strictly humanistic training and for those intending to enter the ministry. The scientific course is provided for a man with the necessary preparation for his entry into any professional school of medicine, engineering, or mining. The literary course is to insure a sound preparation for any more technical training in law, business, or similar pursuit.

A man may easily change from course to course until the beginning of his sophomore year, after which he will find it difficult to do so.

The new curriculum was adopted only after the most careful investigation and deliberation. The leading scientists have been consulted in regard to the scientific course. Further particulars will be printed in the catalogue to be issued in February.

Civic Federation's Bubble

"Look Before You Leap" Apparently Not Their Motto

A premature report of the National Civic Federation in regard to Socialism in the Episcopal Church was "picked up and handed to the "World," in time to appear in that newspaper on the morning of December 15th.

The report, which chiefly concerned us and for which everyone was extraordinarily anxious to read the "daalies," had to do with charges against President Bell. The National Civic Federation, after "careful" investigation, was ready to present to Bishop Burch a petition that he discipline the Reverend B. L. B. The report, however, was never presented to the bishop, who was very silent in regard to the whole matter.

Mr. Easley, who is Chairman of the federation's Executive Committee, said that the charges against Mr. Bell were made by members of his own denomination and as a direct result of the federation's inquiry. He denied, however, that he had any hand in the report to be submitted to the Bishop of the Diocese.

Among the many charges against President Bell were the following: That he advocated that interests from investments and profits are immoral; that rent collecting is wrong; that man's activities are largely determined by the sex and hunger urge; that the social revolution is coming; that those who couldn't see that the social revolution is coming were stupid and ignorant. It was also charged that he believed the sociology of Saint Paul was bad. He was accused of writing socialist articles in "The Social Preparation," of being the founder of the Church Socialist League, and of supporting the Rand School. A report mentioned his last Whitsunday sermon at the Cathedral in New York referred to his close association with Dr. Lyford P. Edwards, professor of sociology in this college, and formerly a Socialist.

In his defence against these charges President Bell stated that he was no longer a Socialist, but a Democrat; that he had renounced from the Socialist party at the time of the outbreak of the war, because he was convinced that its policy was a treasonable policy; that during the war he was a chaplain in the navy. He explained that the charges had been brought to the notice of the presidents of the colleges where he was to preach, and that the investigation he had been permitted to carry out his entire schedule and make addresses in the college chapels. He referred to Princeton, where President Hibben had him preach there quite recently in the college chapel, after Dr. Hibben had been urged that he was a "dangerous character."

In addition, President Bell told the New York World: "The Articles in 'The Social Preparation' were written years ago. I was not the founder of the Church Socialist League—it was founded in England, and I have never been in England. I was never in the Rand School and never had anything to do with it. Bishop Burch publicly congratulated me on the Whitsunday sermon, and Halsey Fiske and William J. Tully had it printed."

"Mr. Edwards is professor of sociology at St. Stephen's. He used to be a member of the Socialist party, but is not now. It is not true that I advocate that interest from investments and profits are immoral, and that rent collecting is wrong. I did say that man's activities are largely determined by the sex and hunger urge. Any sociologist knows that. I don't know what they mean by the Social Revolution. What I did say was that those who could not see that social readjustment was needed were stupid. It is true that I said the sociology of St. Paul was largely bad. I think it was."

* * * "The whole thing is poppycock."

A professor in any department in this college is appointed by the Trustees of the college but is not now. It is true that he was given absolute freedom in this department. When he was a fellow in the department he was given freedom in this department, and the Trustees in no way interfere as long as he remains entirely satisfactory to them in the discharge of his duties.

In regard to the charges against Mr. Bell, Mr. Halsey Fiske said: "It is all poppycock. I cannot understand what they are doing. It looks like an attack on Christianity in my opinion. Bell's no more a Socialist than I am. Bell is an extremely able man, and his Americanism stands firm. The Board of Trustees has absolute confidence in him."

Last September the Trustees passed a resolution of reprimand in regard to the action of this college which we can at this time print. It was as follows:

RESOLVED, That the Trustees of St. Stephen's College express to the President and Faculty of the college their appreciation of the efficient work that has been done during the past year in the various departments of instruction; and they especially commend the work done in these various departments in the development of sane Americanism. An Americanism which so firmly believes in our institutions that it is able fearlessly to examine and adequately to gauge the importance of all of the various social, economic and political movements of our day. The Trustees believe this to be, at this time, the greatest service which may be rendered by our College to our nation, and they wish the President and Faculty to understand how glad they are that this work is being recognized in the development of the life and thought of the men who are on the campus.

Christmas Party

On the evening of December 21st, the annual Christmas celebration took place. As is customary, the first half of the celebration took place in the chapel, and the second in President Hall.

From the chapel, the members of the faculty and the students, led by the marshalls and his assistants, marched to the refectory, where all had dinner, accompanied by all the traditional Christmas customs of Old England. There was then a further procession when Professor MacDonald, accompanied by pages, marched in singing the "Boar's Head Song." Then there followed the procession of the plum pudding, and later on, the entrance of the wassail bowl, which no longer has the measure of importance it had in olden days, thanks to the Eighteenth Amendment.

Much merriment was caused by the gifts which had been placed at the plates of the members of the faculty. As each gift was announced, its hidden meaning was at once perceived by all, the professors, however, professing ignorance. The affair closed by speeches from Dr. Sherer, Dr. Whiting, Major Prince, Colwell, and the President.

SOCIAL CLIPPINGS

Mrs. G. H. Kaltenbach is spending a few weeks with her son in Evanston, Ill. Mrs. Upton was among those who spent Christmas on the campus.

The whole class of History (7) was very kindly entertained on the afternoon of Jan. 5th by Dr. and Mrs. C. R. Williams.

Mrs. Martha Turney-High, of Kansas City, visited her son, Turney-High '22, the weekend of December 18th.

Miss Mary Fowler was the guest of her brother, the Reverend Cuthbert Fowler, for the week-end of December 18th.
Bishop and leader, the Right Reverend Charles College has been deprived of one of the thing had knocked away the foundations on could work for us. He had only just begun the prelate's death first reached us. practice in his own life those ideals for which he worked for us as no other bishop had or

**W**e feel at an absolute loss to express our grief and sorrow over the death of our bishop and leader, the Right Reverend Charles Burch.

The death of Bishop Burch St. Stephen's College has been deprived of one of the greatest friends the institution ever had. This college, like the diocese, has lost its greatest guiding head, and received one of the most severe shocks in its history. There was a certain feeling of emptiness, as though something had knocked away the foundations on which we were building, when the news of the prelate's death first reached us.

Bishop Burch believed in us, he supported us, he worked for us as no other bishop had or could work for us. He had only just begun his great work for this institution when he died.

What a person gives or what a person does in a material way for St. Stephen's as it is the way a person feels toward the institution. Bishop Burch wished to do more for us than he ever found himself able to do. He put into through his support of St. Stephen's to implant in others and to promulgate to the world the ideals which had become a part of him. He was a true bishop, and a faithful shepherd of Christ's flock. He gave his whole life to the Church, and, by putting himself last and others first, worked loyally for the Christian Faith until his physical frame collapsed. He loved the Church in which he was a leader and loved and was loved by all to whom he We may rightly say of him, "Greater love hath no man than this, that he lay down his life for his friends." Bishop Burch had taken an active part in many of our commencements here, and had received a doctor's degree from this institution. He was re-elected last October as Chairman of the Board of Trustees, and last June he laid the cornerstone of the Memorial Gymnasium.

FEN

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Be it far from us to dig up the hatchet or to relate ancient history, but it seems that we have to admit that if it is not one thing it is another.

We have just succeeded (or at least we hope we have succeeded) in putting to rest the hope which those who are outside of Annandale believe that we are not a lot of premature seminarians or holy originators of blue law and other sort of religious manias, when we are confronted with another thing. Our "friends" in New York have now swum over to the other extreme, and instead of making us the supporters of time-worn liturgies and ancient usages among American "catholics", they have told the "World" that we are upholders of Bolshevism, especially in the Church. They would apparently have us now as the holders of a Soviet fort in Dutchess County, promulgating to the world, through the President, socialistic teachings "contrary to His Word". We can safely affirm, however, that we are in no way interested in the doctrines of Trotsky or Lenin among others, this college year. The ma-

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THE MESSENGER

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The Reverend Charles Lathrop, D.D., some time Dean of the Cathedral in Milwaukee, and now Secretary of the Social Service Department of the Episcopal Church, preached in the college chapel on the morning of December 19th.

We have received from the Church of St. Mary the Virgin, in New York, a beautiful set of festal altar hanging for the chapel. The work on the frontal, especially, is very well done, and it is expected to return to the campus some time in January.
Moans from the Lyre Tree

Warned.

Clergyman (who has sat down next to slightly intoxicated man)—"Do you allow a drunk on this car?"
Conductor (low voice)—"It's all right as long as you don't get noisy."—Gargoyle.

Another Ford Joke.

"Why are school-teachers like Ford cars?"
"Because they give the most service for the least money."—Life.

The Bugamist.

A June bug married an angleworm;
An accident cut her in two.
Now what could the poor thing do?
—Punch Bowl.

The Nightly Line.

Teacher—"What, Oscar, is the Ancient Order of the Bath?"
Young Oscar (puzzled)—"I dunno; Johnny usually comes first, then Willie, then the baby."—Life.

Why He Waves His Arms.

Mrs. Sheridan says the Lenin gesticulates when using the telephone. Perhaps, as with us, it arouses feelings that cannot be expressed in words.—London Opinion.

Think It Over.

Lowbrow—I would, but what's the use?
They won't go straight.—Tiger.

What He Said.

Professor—"So, sir, you said that I was a learned jackass, did you?"
Freshie—"No, sir, I merely remarked that you were a burro of information."—Boston Transcript.

You Miss Out.

"Why should girls who sell gloves make good mothers?"
"Well, why?"
"Because they are used to handling kids."—Jester.

Wrong Sign.

A farmer hitched his team to a telephone-pole.
"Here," exclaimed a policeman, "you can't hitch there!"
"Can't hitch!" shouted the irate farmer.
"Well, why does the sign say, 'Fine for Hitching'?"—The Catholic News.

Logic at Work.

Teacher—Thomas, will you tell me what a conjunction is, and compose a sentence containing one?
Thomas (after reflection)—"A conjunction is a word connecting anything, such as 'The horse is hitched to the fence by his halter.' 'Halter' is a conjunction, because it connects the horse and the fence."—Harper's Bazar.

One Difficulty.

"I thought there was a movement in your town for all the churches to merge into one."
"There is."
"What's the delay?"
"They can't decide which one."—Life.

"Say It With Flowers."

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