

To Maurice and Margie
with the compliments of Dad.

THE OPENING OF THE HUME CRONYN MEMORIAL
OBSERVATORY

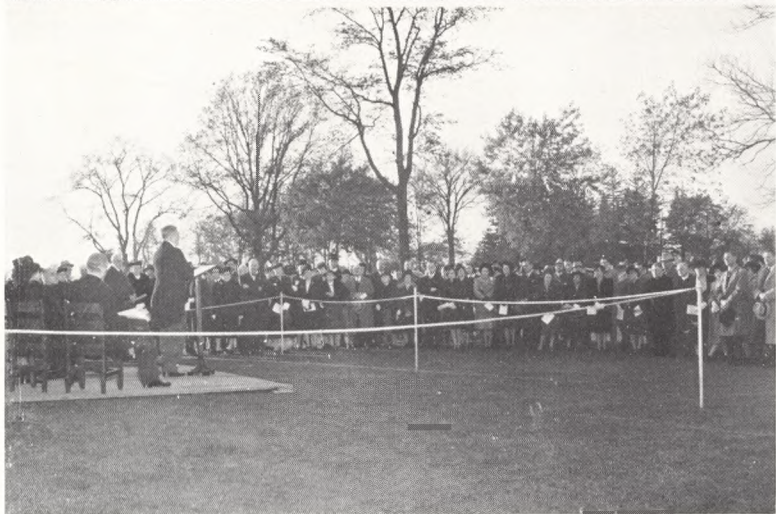
BY

H. R. KINGSTON

Reprinted from
The Journal of the Royal Astronomical Society of Canada
Volume XXXIV, 1940



PLATE XIX

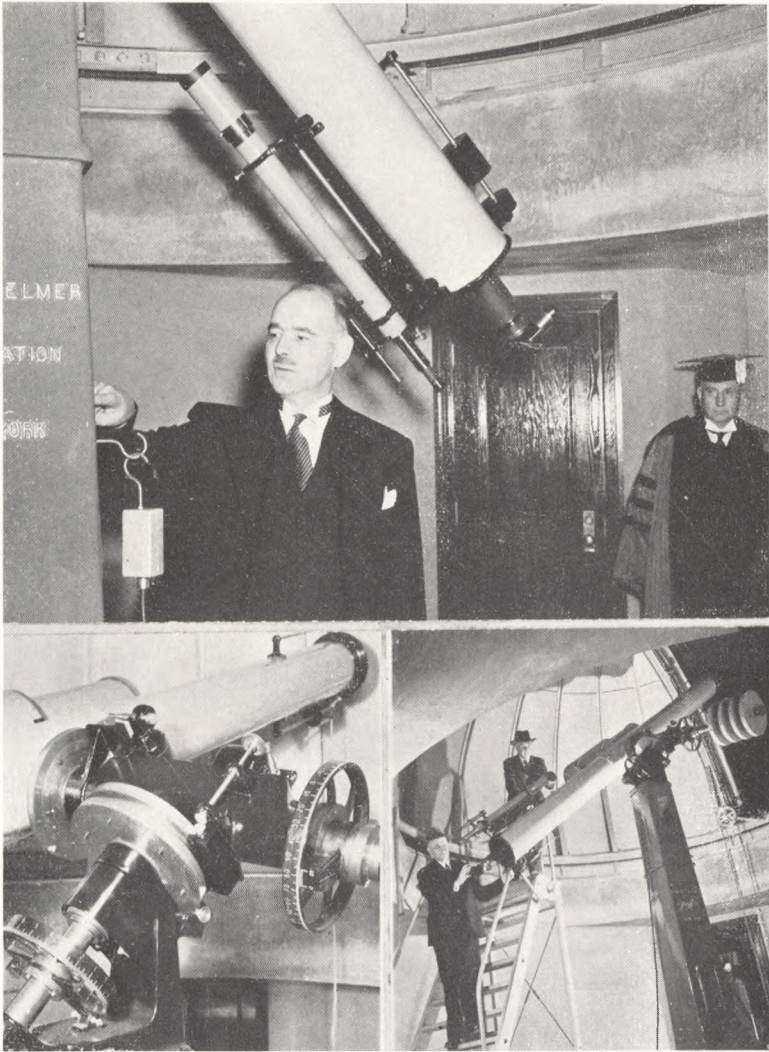


THE OPENING OF THE HUME CRONYN MEMORIAL OBSERVATORY,
OCTOBER 25, 1940

Above. Dr. H. R. Kingston addressing the gathering. Those seated, left to right, are Mr. A. T. Little, Mrs. Hume Cronyn, Chancellor Cockshutt, President Fox, Professor Mitchell (eclipsed by Mr. R. H. Cronyn), Dr. C. A. Chant, Canon Warner.
Below. Professor S. A. Mitchell addressing the gathering.

Journal of the Royal Astronomical Society of Canada, 1940.

PLATE XXII



VIEWS OF THE 10-INCH TELESCOPE

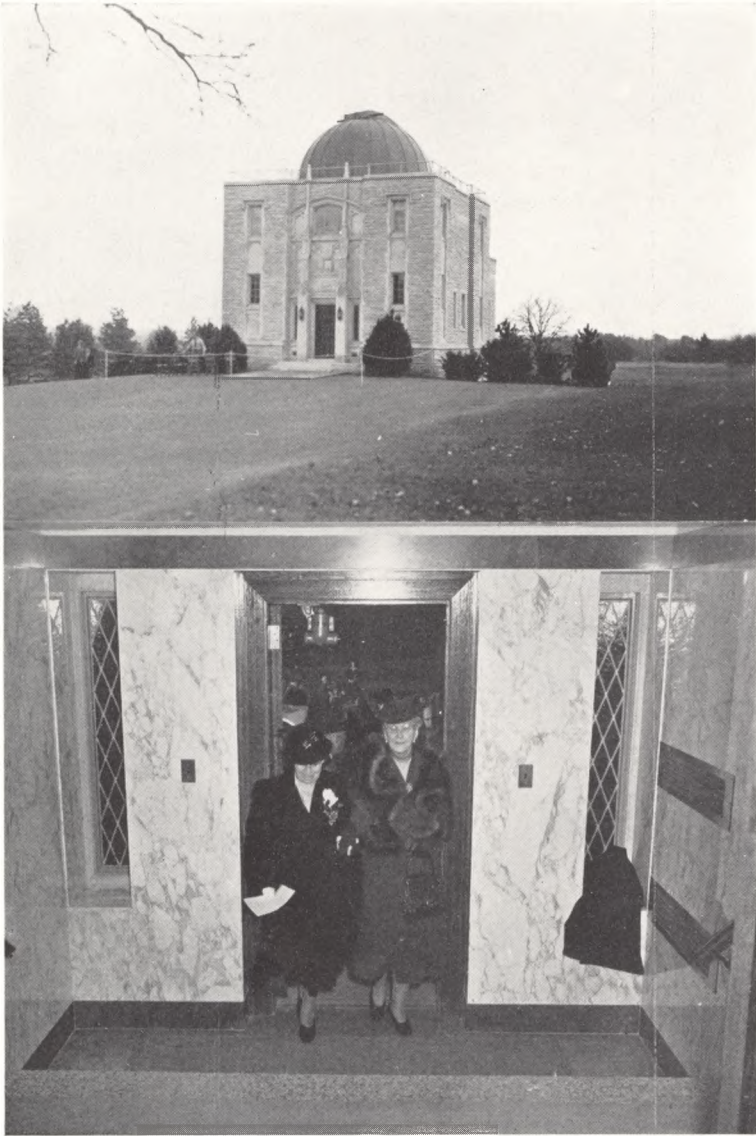
Above. Mr. R. H. Cronyn pressing the button to start the driving mechanism of the telescope, Chancellor Cockshutt at rear.

Below, left. The "head" of the mounting of the telescope, showing the driving mechanism. The synchronous motor is within the pier.

Below, right. Dr. Kingston at the eyepiece of the telescope, Rev. W. G. Colgrove, higher up. The Schmidt camera is on the farther side of the telescope tube.

Journal of the Royal Astronomical Society of Canada. 1940.

PLATE XX



THE HUME CRONYN MEMORIAL OBSERVATORY

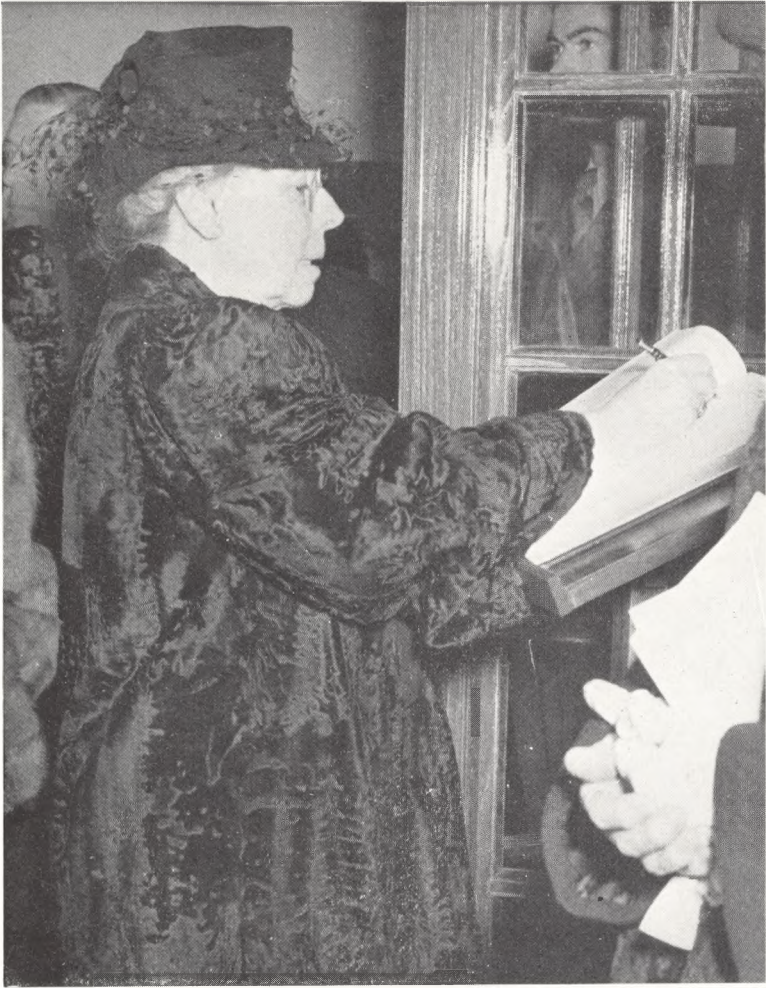
Above. View of the Observatory (from the N.W.).

Below. Mrs. Hume Cronyn (left) and Mrs. Dunlap entering the building after the ceremony outside.

Journal of the Royal Astronomical Society of Canada, 1940.



PLATE XXI



MRS. HUME CRONYN SIGNING THE VISITORS' BOOK

THE OPENING OF THE HUME CRONYN MEMORIAL OBSERVATORY

By H. R. KINGSTON

(With plates XIX-XXXII)

ON the afternoon of Friday, October 25th, the Hume Cronyn Memorial Observatory of the University of Western Ontario was dedicated in a brief ceremony held in the open air on the Observatory grounds. The weather man co-operated perfectly by providing an ideal day, bright and warm, more like August than late October. A goodly number of friends gathered for the occasion. Out-of-town guests included Mrs. David Dunlap and Dr. and Mrs. C. A. Chant representing the David Dunlap Observatory, members from the centres of the Royal Astronomical Society at Toronto and Hamilton, and Dr. S. A. Mitchell, director of the Leander McCormick Observatory, University of Virginia. Colonel Henry Cockshutt, Chancellor of the University, was chairman of the meeting, but was unable to speak because of a severe cold. The speakers were therefore introduced by the Vice-Chancellor, President W. Sherwood Fox, in the following programme.

PRESIDENT FOX: It is most appropriate that we are permitted to call upon the Rector of the Cronyn Memorial Church of this city to take part in the dedication ceremonies of the Cronyn Memorial Observatory. Canon Quintin Warner will now offer the invocation. After the Chairman of the Board of Governors has accepted the Observatory, Canon Warner will pronounce the prayer of dedication.

CANON QUINTIN WARNER, Rector Cronyn Memorial Church: The heavens declare the glory of God; and the firmament sheweth his handywork. (Psalm 19:1)

Let us pray

Almighty and eternal God, Maker of all things, Judge of all men, before Whom all things in heaven and earth shall bow and obey, we consider Thy heavens, the work of Thy fingers, the moon and the stars which Thou has ordained, and ask,—What is man that Thou art mindful of him, and the son of man that Thou visitest him? And yet Thou hast graciously promised in whatever place even two or three of Thy faithful servants shall assemble, to be in the midst of them. Be present with us, we pray Thee, who are now gathered together to dedicate this memorial to Thy Glory and in remembrance of a devoted servant of our country. Accept, O Lord, this service at our hands and bless it with such success as may most tend to Thy Glory and the edification of Thy people—through Jesus Christ our Lord. Amen.

Blessed be thy name, O Lord, that it hath pleased Thee to put it into the hearts of Thy servants to build this observatory to Thy honour and service; and grant that all who shall enjoy the benefit of this work may show forth their thankfulness by making such use of it that, their vision being extended far beyond the confines of this world in which we live, they may learn to relate all that they may be taught in this University to the extension of Thy Kingdom in the hearts of men—through Jesus Christ our Lord. Amen.

PRESIDENT FOX: Mrs. Hume Cronyn, the generous donor of this charming observatory, is, like all true philanthropists, exceedingly modest. While gladly giving to the University this beautiful building and its major equipment, she shrinks from the conspicuousness involved in making an address at a public presentation. We respect her feelings. Reading her mind we endeavour to give the substance of what we divine she would have said had she ventured to speak for herself.

We have built this small observatory as a memorial to my husband, the late Hume Cronyn. He was always deeply interested in the University of Western Ontario and its progress. For that reason I hope this observatory will be a useful and enduring addition to the University's equipment. I have pleasure in presenting the keys to the Chairman of the Board of Governors.

ARTHUR T. LITTLE, Chairman of Board of Governors of the University, in accepting the generous gift, addressing Mrs. Cronyn, spoke as follows:

The Board of Governors of the University of Western Ontario thank you and your family most sincerely for the gift of this, "The Hume Cronyn Memorial Observatory". This delightful and practical building, so complete in its modern telescopic equipment, provides for us much-needed facilities that we had little hope of attaining by our own devices.

It will not only be a source of instruction and inspiration to the students and faculty of the University, but will bring pleasure and benefit to those citizens of this community, who are interested in astronomy.

It is most fitting that the Memorial to the late Major Hume Blake Cronyn should take this form, for we all recall his active interest in the endeavours of his fellow-citizens in all fields,—social, educational, financial, and military. Particularly it comes to mind that he was largely responsible for the establishment of The National Research Council, now giving a service to this country and the Empire that cannot be overestimated.

We remember gratefully that during his lifetime Major Cronyn endowed for this university the appropriately named "The Honourable Edward Blake Scholarships" in Economic and Political Science, thus displaying a confidence in our young university that was truly inspiring.

We are deeply conscious of what this Memorial means to you and the members of your family, and the compliment you have paid us in entrusting to us, not only its proper care, but its most advantageous use in the field of that mysterious and fascinating science—astronomy.

We are indeed grateful, Mrs. Cronyn, and you may rest assured that nothing will be left undone to merit your trust.

CANON QUINTIN WARNER: (*Prayer of Dedication*)

In the Faith of Jesus Christ we dedicate this Observatory to the Glory of God and in honoured memory of Hume Cronyn—In the Name of the Father and of the Son and of the Holy Ghost. Amen.

PRESIDENT FOX: Now that the Board of Governors has accepted possession of the Observatory, they entrust it to the Department of Mathematics and Astronomy for its use and administration. The chief of this department, Professor H. R. Kingston, is himself an enthusiastic and competent astronomer who has for many years given leadership in the study of astronomy both to his students and to interested local groups in Canada. Having followed the development of this observatory from the stage of plans to the stage of completion he is the person the best qualified to describe the building, its apparatus and the service it will render to the University and the interests of astronomy.

Professor H. R. KINGSTON then addressed the gathering:

Mr. Chancellor, Mrs. Cronyn, Honoured Guests, Ladies and Gentlemen: Do dreams ever come true? To-day we are able to say that at least one dream has even *more* than come true. For many years the Department of Mathematics and Astronomy of the University of Western Ontario and the members of the London Centre of the Royal Astronomical Society of Canada have "dreamed a

dream and seen a vision"; to-day that vision is a reality in this beautiful Hume Cronyn Memorial Observatory and telescope made possible by the generosity of Mrs. Cronyn.

It will be recalled that Mr. Cronyn, as London's representative at Ottawa during the latter part of the Great War, consistently urged upon the Federal Government the pressing need of a research bureau for the study of Canadian problems. His untiring efforts led to the formation of the Research Council of Canada, an organization which has already rendered a priceless service to this country. A little over a year ago, on learning of the efforts of the University to secure a telescope, Mrs. Cronyn decided to erect, as a memorial to Mr. Cronyn and his life work, an observatory equipped with a suitable telescope. In December the contract for the telescope and revolving dome was let to the Perkin-Elmer Corporation of New York, and the contract for the building to the Putherbough Construction Company. A word of genuine thanks is due each of these organizations and also to Mr. E. Roy Moore and Co., the architects, for their untiring efforts and patience in producing a building both beautiful and substantial, and a telescope excellent in quality and convenient to operate; and for the gift which made this entire project possible, we are grateful beyond words to Mrs. Cronyn.

Perhaps a word about the telescope may be of interest. There are two kinds of telescopes—reflectors which have mirrors, and refractors which have lenses. Ours is a refractor which has a lens—in reality a double lens—10 inches in diameter. This is the largest lens the glass discs for which have ever been made in the western hemisphere. The telescope is electrically driven to follow the motion of the sky and is also electrically controlled. Attached to the telescope is the latest invention for photographing the heavens, a Schmidt camera, a really marvellous type of instrument which has been available only during the past four or five years. With it we shall be able to obtain remarkable photographs of the Milky Way, comets, star clusters, and other universes at distances so great that their light requires hundreds of thousands of years to reach us.

Beyond the foyer on the first floor of the building are an office and a library, both of which are turned into instrument rooms for this occasion to-day. The basement contains a lecture room, a small workshop and a kitchenette. On the second floor at the back is an observing deck, and off the telescope room there is a very convenient dark room.

With this equipment we shall be able to conduct some valuable research in certain definite fields, as, for example, in the problem of obtaining the life history of variable stars. The principal purpose of this equipment is, however, to aid in the teaching of astronomy. It will enable our students to observe and study at first hand, as well as from books, many of the other worlds in our solar system and in the great universe beyond. Then, too, it will be a great stimulus to the work of the local Astronomical Society. Further, we wish the observatory to provide a cultural service to all the citizens of London and vicinity, and we shall implement this wish to the utmost of our ability. The observatory will be open to the public on Saturday evenings except during the winter months. Further, it is planned to open the building on one other evening each week to accommodate

any organization whose members desire to view through the telescope some of the wonders of the sky.

The observatory has already received some further gifts. An excellent four-inch telescope has been presented by Dr. and Mrs. W. E. Saunders; this has already been of immense service to us. A group of models constructed by Rev. W. G. Colgrove has been given for demonstrating astronomical phenomena; these are the most helpful instruments for this purpose that I have ever seen. A set of striking astronomical transparencies, some of which you will see on the walls of the foyer, have been made from negatives loaned to us through the courtesy of the staff of the David Dunlap Observatory. The members of that staff have also made helpful suggestions in connection with the whole project. A very unusual gift is the Dresden meteorite, provided by the Directors of the London Life Insurance Company. A mirror and eyepiece for a reflecting telescope have been given by Mrs. (Dr.) Sparks of St. Mary's; copies of paintings of famous scientific events, by the Bausch and Lomb Optical Company of Rochester, N.Y.; and other items of equipment by members of our local Astronomical Society. To all these persons we offer our sincere thanks.

But I must not weary you further. I know you would much prefer to see the building and telescope for yourselves. It will be open for inspection immediately at the close of these ceremonies, again after Convocation this evening, and of course, to-morrow (Saturday) evening.

May I again express to you, Mrs. Cronyn, the most sincere thanks of the University, as well as of the citizens of London and of Western Ontario for this beautiful and valuable gift. I trust that we may so use it that it will bring to our students and to our citizens in general the maximum of pleasure and profit, and to you and to your family and friends a very real and abiding satisfaction.

PRESIDENT FOX: The nearest neighbour observatory is the great, imposing David Dunlap Memorial Observatory of the University of Toronto at Richomnd Hill. We welcome its representatives who have graciously joined us to-day—Mrs. David Dunlap and Dr. C. A. Chant, now Director Emeritus. We shall listen with pleasure to the greetings brought by Dr. Chant on behalf of himself and his colleagues.

DR. C. A. CHANT:

It is with great pleasure that I bring to you hearty greetings from the University of Toronto, and more particularly from the David Dunlap Observatory. In doing this I have the cordial approval of President Cody. Also, I feel I am justified in adding the congratulations of the members of the Royal Astronomical Society of Canada. Professor Kingston has been very active in the work of the Society and was the president of the entire Society in the years 1930 and 1931. Its members, who are distributed across our broad country, will rejoice in the wonderful reward of his labours here.

A short time ago I came upon a pamphlet published by the Dominion Govern-

ment embodying the observations made in Canada of the transit, or passage, of the planet Venus across the face of the sun on December 6, 1882. This astronomical event was considered very important. It was thought that it offered a method of determining more accurately the distance of the earth from the sun, which is the astronomer's yard-stick for measuring the universe. I was interested to see a list of the instruments used. Woodstock and Quebec each had an 8-inch telescope, Fredericton a 7-inch, Kingston a 6½, Montreal a 6¼, Toronto and Whitby each a 6-inch, and there were several smaller ones. The telescope at Toronto was imported from England and installed specially to observe this phenomenon.

The majority of these telescopes belonged to colleges of various types and they have been used to some extent in the work of teaching, but not in serious and continued efforts at giving instruction in astronomy. Not one of these telescopes is in the same class with the 10-inch instrument of the Hume Cronyn Memorial Observatory, in power, in mounting or in convenient housing. Indeed this is the most effective observatory of instruction in the Dominion. Perhaps it marks the beginning of a new era. The observatory, as has been already remarked, is not designed primarily for research, but many important investigations have been made with more modest equipment and I confidently expect some enthusiasts in this community to make distinguished observations in the future.

During the last half-century astronomy has undergone a pretty complete transformation, largely through the application of the methods of physics to astronomical problems. This branch of the subject is called astrophysics. During this time Canada has taken an honourable place in astronomical research. The new observatory will do valuable service in inspiring and training workers in this fascinating science.

One of the objects of the observatory is, I understand, the dissemination of a knowledge of the heavens among the people. This I consider very important. One is continually surprised at the ignorance of many educated people in regard to astronomical matters. I think it is because they do not give them a thought. They never look up at the sky and consider its mysteries. Throughout the centuries, discoveries in astronomy have powerfully moulded human thought; indeed they have been the deciding factors in philosophical and theological belief. Each individual person is an organic unit in the universe and it surely behooves him to realize his relation to it.

These are serious times, with disturbing world-happenings every day. We must not lose our mental equilibrium. I contend that the study of astronomy will help us to preserve this. It supplies the mind with noble subjects for quiet consideration. Astronomy reveals the relative smallness of the individual person, but it also teaches the great fact that we live in a universe of law and order.

Long may the Hume Cronyn Memorial Observatory carry on its important and beneficent work!

PRESIDENT FOX: Remoter neighbours as well as near neighbours are represented here to-day. Dr. S. A. Mitchell has come to us all the way from the Leander McCormick Observatory of the University of Virginia to convey a message of congratulations. As originally a Canadian having intimate associations with London, the Cronyn family and the University, he is a most welcome and appropriate guest. Since he is to be presented adequately this evening upon his induction into the doctorate of the University, I shall content myself with this brief introduction and call upon him now to bring us a few words from the University of Virginia. To-night we shall have the pleasure of hearing him speak at length when he delivers the Convocation address. This address entitled "The Astronomer and his Telescope" will, unlike the usual Convocation address, be illustrated by lantern slides.

S. A. MITCHELL, PH.D., LL.D., Director of the Leander McCormick Observatory, University of Virginia:

I am proud to be with you to-day on the occasion of the dedication of the Hume Cronyn Observatory, as a reminder to you and as an evidence of the great and lasting friendship that has existed for more than a hundred years between this great nation Canada, an important entity in the British Empire, and the great Republic to the south of you. On this auspicious occasion I bring greetings from the Leander McCormick Observatory which at one time possessed the largest and finest telescope in the world. I also bring greetings from a famous American educational institution, the University of Virginia.

I am proud that I can come to you to-day not as a stranger but almost as one of your own. You have been very indulgent at several different times in listening to me lecture on astronomy, especially on my hobby, eclipses of the sun. I regard myself as very fortunate in having been born on "the old Ontario Strand" in Kingston. I think I was lucky to come along before educational frills had diluted the high merit of the public school system of Ontario, which in the years now known as the Gay Nineties gave a very thorough training in the fundamentals of a broad education. Although a member of a large family with money none too plentiful, I was permitted to go to Queen's University and I hold the same degree won a few years later by Dr. Neville and Dr. Kingston. Upon my graduation, now many years ago, Canada was not equipped to give me any higher education and so I went to Johns Hopkins in Baltimore, from which famous university I hold the same degree of Doctor of Philosophy won later with great distinction by President Fox.

My home town, Kingston, was represented in the Dominion Parliament during my boyhood years by a great and famous Canadian patriot, Sir John A. Macdonald. I well remember him. Sir John A. was a wily old politician. When he came to Kingston, as he did frequently, he nearly always stopped at a third-

rate hotel. He knew everybody by name, shook hands with everybody, patted the women on the shoulders and kissed the babies.

Near my present home in Virginia was born a great statesman, a true philosopher and a sound scientist, Thomas Jefferson, the third president of the United States. He lies buried at his home, Monticello, only three miles from my own home on what is known as Observatory Mountain or Mount Jefferson. This gifted statesman, who to my mind was the greatest president the United States has ever had, described with meticulous care the tombstone that now stands in the family burying-plot at Monticello. On this granite pedestal are the words, "Thomas Jefferson, author of the Declaration of Independence, of the statute for religious freedom in Virginia, and father of the University of Virginia." You may be interested in knowing that Mr. Jefferson regarded the greatest achievement of his eventful life was the founding of a seat of learning. You may also be interested in knowing that Jefferson's University, as it is called, has an honour system not only for the conduct of examinations but for all student self-government, which has been in successful operation for nearly one hundred years, in fact, since 1841, the year that Queen's University was founded.

My *alma mater*, Queen's, and my present academic home, Virginia, have recently been linked together through the actions of a distinguished American citizen, Franklin Delano Roosevelt. A year and half ago when Queen's gave President Roosevelt an honoray degree, he spoke in most emphatic terms and gave warning to the dictators of Europe that Canada and the United States had a single thought and purpose of defending themselves against possible aggression by the foes of democracy. On June 11 of this year, in making the Commencement address at the University of Virginia, he spoke in ringing words denouncing Italy, which on that very day had administered a cruel blow to the cause of freedom by sticking a dagger into the back of France.

At home, in addition to being the director of an observatory with a fine refracting telescope, twenty-six inches in aperture, I serve as the local U.S. Weather Bureau observer for which latter position I receive from the United States government the princely salary of no dollars per year. As a result of the dual life thus led, I am frequently called up on the telephone by one of the dear ladies of the Garden Club who informs me that they are planning to hold an open-air flower show at Monticello six weeks hence and so she would like to know whether it is going to rain on that particular day. When I tell her quite frankly that I do not know, the disappointment in her voices that trickles in over the telephone tells me that she is saying to herself, "Well, what in the world is a big telescope good for if it cannot see things at a distance!"

Let us take our thoughts now for a little while away from wars and rumors of wars that have taken possession of us all, and let our minds dwell, according to the poet Wordsworth, on "the silence that is in the starry skies, the sleep that is among the lowly hills." It has been my good fortune in life to have seen much of the world, to have visited in most of the great cities of this and other lands and to have met many distinguished men and women. Judging from the eminent men I have met it is my considered opinion that there is no group of people anywhere in the world who have so much pleasure and profit in their lives, in a

word, who have as much real fun, as the professional astronomers. None of us get tremendous wealth and have the power that money can bring, but speaking for myself, I hope that the modest little addition I have been able to make to the sum-total of human knowledge has been of greater lasting value than if I had devoted my life to the task of accumulating filthy lucre. I am in the habit of saying that astronomers are lucky for two reasons: first, that most of their refined researches appear to have little practical value that may be measured by financial returns, and hence there are no trade secrets; and second, because the world over we form a small and select group of friends working with enthusiasm to pass along the torch of learning, burning ever a little more brightly from our efforts.

Into this select group we gladly welcome this youngest observatory and we admit it to all the rights and privileges appertaining thereto, of good fellowship and hearty co-operation. The Hume Cronyn Memorial Observatory will serve a dual purpose: first, in the stimulation of good teaching, and second, in research. We who have been in the teaching profession all our lives have learned that the surest method of keeping out of a rut in our methods of instruction is to do something while to brush the cobwebs out of our brains, and this something we dignify by the name of research. In quantity we shall not expect this new observatory to equal the output of some of the great American observatories for the simple reason that their annual budgets are several times the total cost of this observatory. It will not be necessary to try to compete with the two Canadian observatories with great telescopes at Victoria and Toronto. Fortunately, there are many lines of astronomical research that can be well carried on with smaller instruments. We in Virginia are doing our best to demonstrate that work of first-class quality may be done with a telescope that many astronomers regard as an obsolete type, namely, a visual refractor. In quality, however, we shall be satisfied here with nothing but the best.

My time is up and I must stop, but before I do so I would like to remind my friend Dr. Kingston that the eminent Irish astronomer, the late Sir Robert Ball, prescribed a very simple life for the professional astronomer. All that is required is that the astronomer spend each night and all night in observing the stars and then spend the balance of the twenty-four hours doing arithmetic. Surely no one can ask for a simpler life than that, especially if the temperature may be 26 degrees below zero—as it was years ago when I was young and worked all night at the Yerkes Observatory.

And now it gives me great pleasure to ask my own nephew, Richard Hume Cronyn, to put the Hume Cronyn Memorial Observatory into operation by starting the motor that slowly moves the telescope.

Congratulatory telegrams and letters were read from Dr. J. A. Pearce, Director of the Dominion Astrophysical Observatory, Victoria; C. A. McDonald, President Vancouver Centre of the R.A.S.C.; Dean A. Vibert Douglas and Professor K. P. Johnston, Queen's University; Robert Peters, President Victoria Centre, R.A.S.C.;

Miriam S. Burland, President Ottawa Centre, R.A.S.C.; Dr. J. W. Campbell, Honorary President Edmonton Centre, R.A.S.C.; R. Meldrum Stewart, Director of Dominion Observatory, Ottawa; Dr. R. K. Young, Director of David Dunlap Observatory, Richmond Hill; and Frederick L. Troyer, Toronto.

After the singing of the national anthem the Observatory was opened for inspection. Mr. R. H. Cronyn, son of the donor, turned the switch putting into operation the driving motor of the telescope, and expressed the hope that the telescope would be a valuable aid in enhancing the service which the University is rendering to her constituency.

The ceremony was followed by a dinner given at the Hunt and Country Club by President and Mrs. Fox.

The Autumn Convocation held in Convocation Hall in the evening was in part a continuation of the afternoon ceremony. Dr. Mitchell was presented with the degree of Doctor of Laws, *honoris causa*, and gave the Convocation address on the topic "The Astronomer and his Telescope," the address being illustrated with lantern slides. After Convocation the Observatory was again open to the public who greatly enjoyed views of Saturn and Jupiter through the new telescope.

PRINTED IN CANADA