KNOWLEDGE IS NOT ENOUGH

Whatever you may achieve or become as individuals, there is one denominator common to all. It is your common aim to seek happiness. This does not mean an absence of hard work, a mind free from trouble, a heart without sorrow. For happiness, while personal and to a degree biological, has some well-known common ingredients and one of them is sacrifice. No one can be truly happy who has not served others in love and self-abnegation. No one can be happy who seeks but his own comfort and security. Therefore we do not wish you wholly unclouded days. We wish for you professional opportunity, significant social experience, and a chance to show what your training has done for the world, through you. Along these paths you may successfully pursue happiness.

When the drafting of the Declaration of Independence was under way, a phrase was borrowed from an earlier “Declaration of Rights” adopted by the First Continental Congress and used in part by Jefferson and his associates as a model. But in the borrowing the form of the phrase was changed. Originally it asserted that all men have inalienable rights to life, liberty, and property. In its modified form, the word “property” was stricken from the phrase and “the pursuit of happiness” inserted in its place. Observe that the makers of the Constitution of the United States did not assert a general right to happiness but only a right to pursue happiness.

1An address delivered at the twenty-sixth commencement convocation of the Rice Institute by Isaiah Bowman, Ph.D., Sc.D., LL.D., President of The Johns Hopkins University, at nine o’clock, Monday morning, June 9, 1941.
Knowledge is not Enough

ne. This was not enough for the makers of some of the state constitutions. In seventeen states the constitutions now in force assert the right of the citizen to pursue and obtain happiness. That word "obtain" has become the pivot of argument and decision in a number of suits, several of which have been won by plaintiffs who, the higher courts found, had been unlawfully deprived of their right to obtain happiness.

If only seventeen states guarantee the citizen’s right to obtain happiness, some of you are clearly out of luck. I will not prolong your suspense. The privileged states in alphabetical order are as follows: California, Colorado, Florida, Idaho, Iowa, Maine, Massachusetts, Montana, Nevada, New Hampshire, New Jersey, New Mexico, North Dakota, Ohio, Vermont, Virginia, and West Virginia. Since the majority of the students of the Rice Institute, like those of other colleges throughout the country, are drawn from regions within a few hundred miles of the college gates there are many of you who now anxiously observe the omission of Texas, Louisiana, Oklahoma, and Arkansas from among the list of states where happiness, according to the State Constitution, may be obtained as well as pursued. For citizens of those states (including the City of Houston) there is no constitutional right whatever to obtain happiness, only the right to pursue it!

This Institute has given you the opportunity to identify some of the keys to happiness but it has not given you, and cannot give you, the assurance of happiness. Only those who earn happiness can have it. Happiness grows within: it has no outer symbol like a Phi Beta Kappa key or a ribbon in a lapel. Technical training alone cannot supply it. The cleverest technician may be the unhappiest of men. A technically trained man may be only a pedant, or a coward, or a man
lacking in what we loosely call common sense, a term not without its own limitations. A Hindu glazier was once called to repair a broken window at the house of an English lady residing in India. In setting his ladder he slipped and smashed to bits the entire window which he had been asked to repair. The indignant lady reprimanded him and ended by asking, "Have you no common sense?" The Hindu replied, "Madame, common sense is rare and the gift of God: I am only technically trained."

It is honorable to wish and to work for economic security, but happiness is not to be found in wealth if fear for your personal security drives you to accumulate, because economic security also has its outer battle line of attack; and, where attack may fall, there will your fears and your unhappiness be also. Fear will only drive you on to strengthen your already strong economic position. We are accustomed to look for such fear only in the dwellings of the poor; in reality it affects all economic classes. Lucretius observed 2,000 years ago that fear accounts for a whole world of unworthy actions on the part of unhappy men. Said he, you sacrifice your life for a brief security, you heap up wealth that you may better protect yourself and have a majestic tomb, statues, and monuments, assuming that this will somehow be a satisfaction to your soul, when all the time your life is corrupted by blind terror. He concludes that the general acceptance of the scientific view of life free from fear, and also free from superstitions—the gods living in peaceful abodes, the natural world examined for what it is—that this attitude alone can bring happiness and peace and honor to the world.

What our civilization might be like today if men had experimented with the ideas of Lucretius for 2,000 years one cannot even guess. What we know is that an interest in physical science was not developed as Lucretius hoped. A
so-called ethical interest of debased type came into play, and here and there was definitely perverted in the hands of self-seeking men who learned how to manipulate the mechanisms of political power and who triumphed over reason and fairness. Down the centuries have marched the forces which these men represent. We see their work in the Roman Republic and Empire, the Middle Ages, the Renaissance, and in modern times. "They will," said Montaigne, "that our persuasion and judgment serve not the truth but the project of our desires." In high-sounding terms wicked men gained and held the terrible power of life and death over millions whose fears were fed by superstition and whose hopes were centered upon winning security from the sea of eternal fire below. Pity for man was not yet an organized force in the world. Superstition and inhumanity also walked through the door opened in the name of ethics; and the love of God for man and the self-sacrifice symbolized by the Cross of Christ were chanted by hosts that cruelly murdered natives by the hundreds of thousands in the New World and fought bloody and prolonged wars in the Old World. In our times we have the counterpart of ancient terrors and their results. Today, even at this moment, we find whole peoples excessively preoccupied with social-psychological half-perceptions and half-wishes that have opened the way to such brutal fancies as totalitarianism and revived the right of a single leader to invoke divine blessing upon his people while exercising his perverted will at whatever cost.

Admitting that it is the business of science to discover truth in physical and biological realms, science has no unique key to happiness. On the other hand, let no one persuade you that science is all materialism. While its awards include radio, moving pictures, modern sanitation, high-speed transport, and their problems, they also include alleviation from
many forms of pain and risk, relief from manifold drudgeries, and a new way of looking at things that has affected our whole spiritual and intellectual outlook. It deals also with the inside of men's characters and not merely with the instruments of power in their hands. It recognizes the personal value of the truth expressed by Mazzini: "You will not have things better until you are better yourselves." It says, as a scientist remarked recently in reporting the results of a prolonged experiment: "We doubt this though we would like to believe it." Modesty in making claims to discovery or modesty in expressing one's convictions is the ideal or first rule of the scientist. No true scientist can honestly endorse a half-baked generalization about Lebensraum or respond to that novel and modern form of mysticism which sees the just hand of Providence in the murder of Czechoslovakia, Poland, Belgium, Norway, Holland, Austria, Denmark, Greece, and Yugoslavia.

On the eve of her execution, Edith Cavell wrote on the margin of her prayer-book, "In an evil time it is a great virtue to be silent." This is indeed a virtue and few attain it. It is applicable, I think, more often to private than to public affairs, to personalities than to causes. In the modern world you will not find happiness if you do not ally yourself with great causes that transcend your personal interests. When you do so, the truths of science and also of humanistic scholarship will stand out as great realities for the first time. The spirit of scholarship is compounded of modesty, not vanity, of results verified by experiment, of open-mindedness, of fairness to others who hold different views, of the uses of freedom, not its abuse, of solid achievement, not vulgarity and dialectical smartness.

*Knowledge alone will not bring happiness.* Two hundred years ago a wise observer talking to a young medical student
Knowledge is not Enough  139

remarked, “Remember, my boy, that what we know suffers from what we do not know.” Knowledge is never complete and it is always contingent. Uncertainty hovers around the edge of every conclusion and of most so-called facts. A life is not complete which is buttressed by knowledge alone. Faith, too, is needed, but it must be a faith in something not yet realized, the substance of things unseen, the cause bigger than the man, the fight that is above personalities.

This Institute can celebrate a triumph today if it has given you a horizon that embraces an understanding view of this democracy in which you dwell and that forms the framework of all our institutions, and conditions our social evolution and our happiness. Democracy in America is still too largely a creed of promise. We generally praise democracy in terms of our wishes, not in terms of critical rejection of other systems. We have learned, however, that the free institution, whatever the political system in which it operates, has come to stand as a symbol of a progressive society. For progress depends upon new ideas that take account of new social forces. It was the free play of the mind that created its concepts; it has been the continued free play of the mind that has given those concepts vitality and popular support and developed others to fit the needs arising out of the revolutionary social changes of the past one hundred and fifty years. Science, for example, is free or it is nothing. Its main tenet in the social field is free-ranging self-criticism. We commonly hear intellectual freedom defined as one of the gifts of democracy. It were better to define democracy as the gift of intellectual freedom.

Education in a democracy is education for a better democracy. If democracy fail, lack of restraint will be one of the first causes. A democracy is not alone a set of first principles; it means change as well as order under system. This was
recognized in provisions for altering the Constitution, in twenty-two amendments to it, and in the wide acceptance of the principle that in interpreting the law the judge inevitably expands the law. Higher education in the social field challenges and re-interprets what has been, perpetually restates current needs, frames new objectives on its attempt to prevent dangerous tension, and searches endlessly for better means to attain improved ends.

Freedom is an ideal—one of the greatest the world has known. Progress has been made because disciplined freedom gained room in the minds and institutions of men. The word discipline is essential. One of the conditions of survival of free institutions is the sacrifice of individual rights once maintained in the name of freedom. When only rights are remembered and duties forgotten, decadence will surely set in.

Freedom means also the acceptance of the responsibilities of freedom; liberty begins with a well-understood definition of liberty; democracy means fighting for the dissemination of truth not falsehood in a democracy. The word "honor" is out of fashion in many countries of the world and in some of our own domestic groups that are organized to sabotage American democracy. Let no man influence you by hollow words alone: demand that he show respect, by deeds, for the old virtues. Honor, faith, loyalty, democracy, freedom can easily become debased verbal coinage. Every villain in one field of action begins his defense with a statement of benign intention in another.

For the first time in American history we as a people have become interested in our culture. To acquire the ability to discuss it intelligently, to appraise it accurately, to develop it judiciously, is a vital part of one's education. Culture is not a static thing. It has its bursts of development. It interests its makers and developers, as well as its enjoyers. It is a
Knowledge is not Enough

unifying agent among men, as well as a dividing agent. We prefer our own culture. To rise above the limitations of our culture requires us to be critical of it. We can never be satisfied with it. We can never say that we have had culture enough. We can never sit back comfortably and enjoy culture and do nothing for its enrichment or its extension. Cultural elements were originated and developed by men and women who were in earnest about something, or curious about something, or in a passion about something. The creators of culture are intense people. They are willing to pay the price of their achievement in hard work, desperately hard work if need be. Perhaps they also desire fame, and they are willing to pay the price for that. But many who create cultural elements do so principally because they desire to exercise their own powers and desire to make that which shall endure, which shall outlast them: "The gods depart, the poet's hymn remains."

There is another aspect of culture which tempts men to concentrate their powers upon its creation. It is the high enjoyment of those rare moments when one realizes that one has done a thing superlatively well. It is delight in excellence. It is an ambition, a fury, one might almost say, to achieve high quality. Kipling describes it as the hope that one day "the magic of the thing" may flow through one again. One may not hope to equal Shakespeare, or Milton, or Rembrandt, or Sorolla, or Haydn, or Mendelssohn in range, in continued power, in total achievement. But did you ever stop to think that you might be able to do a single piece of work as well as one of these masters? There is always a price to pay, for your work can only be as great as you are. You cannot expect to paint great pictures, or compose great music, or write an enduring play, unless you yourself are great. But greatness has its scale of size as well as quality. It is
their stupendous output at sustained high levels that mark the masters. But if you have talent or a touch of genius you can rise to their level on occasion. You can do one piece of work as good as Shakespeare's. Every man has at least one great story in him. Every man has something for which he would be willing to put up heroic defense. Achievement is oftentimes thought of as not for me but for the other fellow. We look around for things to enjoy when our chief energy should be concentrated on things in us which we desire to develop.

The sum of these achievements is culture in a man, in a woman, in a people, in an international society. I repeat, it is a state of mind about excellence and achievement, about fairness, about a way to live, about a desire to have beautiful things endure.

All passes; Art alone
Enduring stays to us:
The Bust outlasts the throne.
The Coin, Tiberius.

Perhaps you think that culture is in some other country; perhaps you are thinking at this moment of some far-distant gallery of paintings; perhaps you think of culture as a collection of tools which primitive man employed and which can be enjoyed only where an orderly collection of them is available; perhaps you think that only the rich or the privileged have culture; perhaps you think that a fine house, where you can be surrounded with expensive adornments, is culture; perhaps you think that a certain way of speaking is culture. Let me assure you that culture also springs out of attention to the commonplace. James Harvey Robinson once said: "Those to whom a commonplace appears to be extraordinary are very rare, but they are very precious, since they, and they alone, have built up our minds."
Knowledge is not Enough

The commonplaces to which he refers are community and individual acts, feelings, and talents that can be described in ordinary terms. They have to do not only with the creation of cultural elements, but with their enjoyment. "Culture" is a unitary conception. If I were to define it I would say, like Theodore Marburg, that it is an attitude of mind born of intimate contact with good manners, high ideals, art, and philosophy (knowledge). Culture is not merely a collection of objects in show cases and a literature which interprets them. It is to an important degree an indivisible thing. It is also a community product. Giddings concludes, "All arts are phases of the social mind."

To affect the social mind it is necessary to appeal to numbers. This would not be true in the same degree if we sought only to locate and stimulate creative minds, which are rare. The latter process is important but it is also more hazardous. There is no known way of foretelling genius in an individual. It is certain that genius feeds, in part at least, upon the cultural resources of its age. To elevate the quality and increase the available quantity of cultural resources are twin processes that foster genius but that in any event widen human enjoyment in its own aesthetic expression.

"What is community culture supposed to do?" and "Does it aim at helping to develop talent or at community enjoyment?" Some community effort is tangible and precise. Some of it is, and has to be, general. Its value is a matter of opinion and judgment. We confine ourselves to the opinion and judgment of a single authority. Saint Gaudens, in his Memoirs, writes of a knowledge of creations of beauty: "I know it is a question whether such a knowledge increases the general happiness and morality of a community. I firmly believe it does, as I believe that any effort to do a thing as well as it can be done, regardless of mercenary motives, tends to the elevation of the human mind."
By improving the cultural institutions of a community we improve the culture of the community. In time, free lance movements, if the ideas that inspire them have permanent value, always become institutionalized. Thus they remind the public systematically of the good ideas themselves and how they got to be implemented. Institutions that survive current fashions and criticism do so because they embody a wider unity than fashion affords. Fashion is a change in detail. Institutions have also the intangibles of tradition, which is a coming-back-to-tested-truth process. They have a slowly changing structure that fits the rationalities derived from experience. Always and everywhere their survival depends upon their obvious utility in practical affairs as well as in the realm of the intangible, the spiritual, the idealistic. Such are some of the commonplace of institutional strength.

You see that I have been talking about culture in quite common words. I once asked a Latin American acquaintance for a definition of culture, and here is his reply verbatim: "A sense of your place and time and of the essential manhood of the people around you and of the relations of men to men and to their place and time."

One of the surprising things about his answer was its readiness. I have asked at least fifty of our own people for a definition. They invariably begin by asking, "Well, just what do you mean by 'culture'?" My Latin American friend replied thoughtfully, with a ready definition. He said nothing about tools or science or machinery or stone axes or paintings or museums. He talked about people, and you observe the critical importance of his first phrase, "A sense of your place and time." How does one acquire a sense of one's place and time? Let me suggest some of those ways by asking you six questions. They are very simple questions. Anyone who has any knowledge of the world and of things about him can
begin to think out the answers to the questions. In so far as he thinks out such answers he is gaining in cultural outlook. He is becoming aware of his place and time. The questions are: Who are you? Where do you live? What do you know? What do you do? What do you say? What do you believe?

To answer the simple question "Who are you?" requires you to know something about the elements of blood in you, the race from which you sprang, the biological energy at your disposal, the changing and transient character of life, the great chain of existence that has enabled us to rise from single-celled animals through a host of intermediate forms to a level of conscious being that we call "man's high estate." Some of our upward steps in that long evolution of billions of years are startling in their possibilities. Barcroft, a scientist, explains how man's activities rose above the level of the lobster's activities. It is rather a humiliating thing to think that we might have remained at the level of the lobster in the animal kingdom but for a somewhat accidental circumstance. In some way our circulatory system developed haemoglobin. This is the coloring matter of the red corpuscles and in man it has the capacity to carry a quarter of its own volume of oxygen. Leeches and earthworms have red corpuscles also but their oxygen-carrying capacity is only one-twelfth that of the red corpuscles of men. The next time you are tempted to call a fellow mortal a lobster, try calling him a man with deficient oxygenation. If you think of trying this you will probably end by deciding not to call him anything. But for the chemical changes which haemoglobin made possible our life would have been lowly—we should have crawled about on the ground or lived in a shell as some people still do, and I am not so sure but that they still deserve the name of lobster. One may answer who one is in many ways, but one of the answers can be put in the negative form: "I am not a
lobster and I will tell you why I am not a lobster. It is because I have haemoglobin in my system." No matter how you study yourself you end always by saying: "I am not just John Jones. I am not merely one of the Jones family. I am not merely a graduate of the Rice Institute. I am a great evolutionary achievement." May I add that you are also a person of habits, and they began before you could recognize your mother's face in the dawning consciousness of infancy. Some men spend their entire lives trying to find out who we mortals are. Human biology is an infant science. We are only on the threshold of it. If you are a young person your interest will grow daily in who you are, and in time you will be amazed that you know yourself so little. Experience after experience will come that will startle you into a consciousness of your profound ignorance of yourself.

There is a valuable lesson in humility in the experience of finding out who you are. If you know so little about yourself how can you be sure that you know anyone else? There are many ways in which this humility will express itself as you gain in the experience on which wisdom and judgment are founded. If you think and enquire long enough you will be less and less inclined to attribute motives to others. You will not be so sure that you know why they act as they do—because you cannot always be sure that you know why you yourself act as you do. You will be more inclined to look at the acts of others in a charitable light. You will more and more often conclude: perhaps their intentions are just as good as mine are.

In a notable interview with a scholar, Justice Oliver Wendell Holmes once said that he made the greatest discovery of his life at the age of eighteen, when he came to the solemn conclusion one day that he was not God. This stupendous discovery colored all the rest of his life, for he saw that hu-
Knowledge is not Enough

man beings could not deal generously or fairly with each other unless each one recognized that the other fellow had rights equal to his own. "You are you," said Justice Holmes, "and I am I, and I must assume that your motives are just as lofty as my own. Who am I to judge you?" This principle he had carried throughout his life, in his family, his personal relations, and the law. "As a judge," he concluded, "I have always kept the principle in view and have given the man before me the benefit of the doubt, unless the law was clearly to the contrary."

I hurry on to the next question, What do you know?

Recently a friend of mine, an eminent scholar, sat down to breakfast pretty well content with himself. The morning was fair, we may suppose, there was a day of pleasant work in prospect, and the coffee was no doubt unusually good. His son, somewhat above your average age, entered the dining room, and in the distracting way that sons have, he abruptly asked a question so momentous that in one shattering instant the father's self-assurance completely disappeared. The question which that young man asked his father was: "Father, you've been around here a long time—what do you know?"

No old saws, aphorisms, or platitudes are wanted when a son hits the target like that! What do you really know, father—now that you've been around here a long time? One is involved in a struggle if one attempts to answer that question frankly, especially on Commencement Day. Certainly if I attempt to answer it I must step out of the traditional rôle of my office. For a college president has been described as "not a dictator, oh no, but rather a gentleman, who stands on an eminence and sprays rose water on a jungle full of wild animals!" In these anxious times the answer to the young man's question is certainly not rose water, or platitudes, or
vague references to a glittering idealism. My embarrassment, in attempting an answer, is increased by self-challenge. Who am I to pretend to tell you in all your diversities what you should know or what I think I know? Is there not a certain cool presumption in telling any other man anything about the wisdom that gives knowledge wholesome vitality? Is this not a personal question chiefly? I hurry on, lest you ask for a plebiscite!

That father’s reply to his son left both dissatisfied, because all that the father was able to say on the spot was: “My son, good work, done with all the honesty you can command, counts, and brings its own reward.”

Uneasily he continued to reflect on the son’s question and his reply, on what he had learned about man in general, on the ultimates, if such there be, in human endeavor. So he attempted later to set down with Newtonian simplicity what he calls the four laws of history, four laws of which three are well-known quotations. They run as follows:

1. The mills of the gods grind slowly but they grind exceeding small.
2. Those whom the gods are about to destroy they first make mad.
3. The bee fertilizes the flower that it robs.
4. When it gets dark enough you can see stars.

Again he was dissatisfied, so he tried once more, with the European tragedy in mind, the growing danger to the people of the United States and to their way of life, our still perilous venture in democracy. All these things seemed clearly more important than a pious conclusion about good work, or tall talk about the mills of the gods, madness, bees, and stars. So he was driven a third time to try to answer his son’s question. And now his answer seemed nearer to his son, to life, and to common sense. He answered by asking five searching questions:
Knowledge is not Enough

1. What are we, the people who form this Union called the United States, united for? There seem to be too many versions of purpose when unity is required.

2. Will we remain united and free; or can we remain united only by dictatorship, or our own contriving or otherwise, and therefore not free but shackled?

3. Are we so sure of our national purposes and of the meaning of our past experiences in fulfilling them, that we have any business defining the national purposes of others unlike ourselves?

4. Can we concentrate our powers or are we merely a loose, disjointed, formless, purposeless, aggregation of selfish weaklings?

5. Are we hard enough to stand the strain of the discipline that unity and purpose require today?

A wise observer once said, "When an order of things has to be systematized and justified it is approaching its death." Is democracy a living force or is it a mouldering ruin? Are union and purpose in our national life a pious formula only? Is patriotism a few rhymed verses—or is it a poignant memory of Valley Forge and unknown graves, and a dream of civil liberty? If I ask you the purpose of these United States under the Constitution, and what has become of inalienable rights, of promises of freedom, of equality of opportunity, of government by the people, do you begin your answer with statistics about paved roads, increasing exports and imports, and per capita consumption of electric current? Or do you ask such questions expecting to receive an answer in terms of elevated standards of living, an increased number of yards of poetry per diem, wider mass attendance at musical concerts, and lengthened mileages of spiritual contemplation? Well, let me tell you what I think I know in part and believe—that the latter categories are infinitely more impor-
tant than the former. Next to the primary requirements of defense our vast industrial production has no other meaning than that it help us to attain those high purposes. But there is a condition attached, *fateful condition!* Are we hard enough to stand the strain of discipline? If unity and purpose in national life demand strain upon *you*, can you take it? Or do you want everything secure?

Dr. Goebbels, the German propagandist, has observed that "Youth is always right. For it, every 'yes' and 'no' is not qualified with a 'but' and 'however.'" He condemns youth while appearing to approve it. For what he says in effect is that to simple young men all propositions are simple, and thinking is simple! Accumulated experience doesn't get into the traffic lanes of thought because there is as yet no experience, or at least very little of it. Inherently complex things are reduced to false simplicities. Youth is trained in this way to be positive and aggressive, and to feel, not to think, its way through difficulties. Dr. Goebbels has built his whole structure of youth training upon two main falsehoods: (1) youth is always right, and (2) the only good patriotism is a blind emotional devotion to a leader.

I have put the name of this shocking individual into this commencement address because he is a symbol of a philosophy and a program that have put their vile hands into every university and every home in America. The terror of their deeds is projected into this assembly and darkens our future as well as the future of tens of millions elsewhere. It is the ghost at every banquet, the shadow on every wall. They and he remind us of a phrase spoken while the Civil War was still in progress in 1865. Lincoln referred to "The progress of our arms upon which all else chiefly depends." We can read a phrase like that in a book and understand it as expressing a necessary state of things in an unhappy past. It is pro-
foundly depressing to think of it as applicable to our day. Your job, that expectation of marriage and a career that you cherish, the accustomed gardens of life, the whole tender-hearted world of music and poetry, as William James called it—all these are but dreams, if the framework of our civilization be broken. That framework, we must now admit, is again a structure of human bodies, steel-armed for defense and destruction. Everything once again depends upon an issue to be settled at arms. Again we must say that brains (for a time) are only to strengthen the body, to impart skill to muscle and steel. Like the remotest Norwegian fisherman or herdsman we have found that the war is our business now. Hitler is standing at the threshold of every house in Norway, Poland, Czechoslovakia, Holland, Belgium, France, Switzerland, England, and America. Every spiritual and humane enterprise in these countries has stopped or slowed down and will not come to full flower again until long after the Nazi steel-birds, having completed their nests and hatched their devouring broods, are driven back again.

You are not worthy of the higher education you have received if a distinctive excellence does not mark your work and your point of view from this time on. That excellence does not consist in saying, like Dr. Goebbels, “Youth is always right,” but rather in recognizing the eternal truth expressed in Lincoln’s phrase that your life’s campaign will have results both fundamental and astounding, about which you cannot be sure today, but only hopeful and prepared. You can be right about many things lying within your field of experience; but you cannot be right about many others still outside experience and outside the power of forecast. Most opposing causes are not represented by black and white but by different shades of gray. You have not yet clearly learned your lesson if you have learned it only out of a book.
Commencement Address

It is happy to think that your lives will extend far beyond the troubles of today. You will outlive all who hopefully preach to you, who critically teach you, who devise false doctrines to entrap you. You will tell your children of a day when you were young and when mean and ignoble ideas held men's minds in thrall in neighborhoods not all of which are beyond the seas. We hope you may be able to tell them also of triumphs yet to come, how liberties were restored to peoples now denied them, and who restored them, and how, and the year when the firing squad as a form of political persuasion came to an end, and how widespread unemployment was at last conquered by processes undiscovered in 1941.

On that distant day you will not fail to remember the triumphs of your Institute in scholarship, manners, and in the art and the integrity of its teaching, its march to yet higher achievement, its gain in power to distinguish false from true, superficial from enduring, base from noble, in short to discover closer and closer approximations to truth, in which and through which alone we hope that we shall one day be free.

These are days of battle and hate. One day peace will come, perhaps only after we have fought for it. Perhaps also we must hope for it, if by hope we mean spirit, belief, faith, experience, resolution, independence—all wrapped up in one dynamic word. In Prometheus Unbound, Shelley gives the attribute immortal form:

To suffer woes which Hope thinks infinite;
To forgive wrongs darker than death or night;
   To defy Power, which seems omnipotent;
To love, and bear; to hope till Hope creates
From its own wreck the thing it contemplates . . .
This, like thy glory, Titan, is to be
Good, great and joyous, beautiful and free;
This is alone Life, Joy, Empire, and Victory.

Isaiah Bowman.