A Century...
of
Progress

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OSCAR E. ALESHERE
FOREWORD

These articles were originally contributed to The Modern Woodman. Through its courtesy they now appear in book form. The purpose in writing on A Century of Progress has not been primarily to advertise the world’s fair, but to tell to more than a million readers a few dependable facts about the greatest scientific exposition ever planned. Many of the articles have been widened in scope to include more than technical description. Small claim is made for originality. Necessarily anything written on the subject must depend on official facts and figures. A few of the articles written months ago have been slightly revised to bring them up to date. It is hoped that A Century of Progress will receive the same friendly consideration that has been given to Borrowed Thoughts, Personal Experiences, Stories and Myths, and Miscellany. This little book is sent to you with the compliments of the author.

O. E. A.

January, 1933.

THE CITY

The gates of the Chicago World’s fair, officially known as A Century of Progress, will be opened to visitors June 1, 1933. This statement is made with full knowledge of progress, financial backing and the determination and vision of the fair’s supporters. For five months Chicago will be host to the civilized world. The occasion is the centennial of Chicago’s birth. It happens also to be the fortieth anniversary of the great World’s Columbian exposition held in Chicago in 1893.

What about this young wonder city at the foot of Lake Michigan? Why has it done so much and grown so fast? Is it due to its location or to the spirit of its people? In a century it has grown from an Indian fort to a cosmopolitan city with a population of nearly three million five hundred thousand. It is the third city of the world. Compared with other cities, it is still young. London is nearly 1900 years old; Berlin nearly 1000; New York nearly 300.

Chicago’s area is over two hundred square miles, being about twenty-five miles long, north and south, and eight to ten miles wide east and west. Its tributary population and territory greatly increase its size and strength. It is situated near the center of population of the United States. In one night by train or one day by automobile, approximately half the population may reach Chicago. It is the greatest railroad center in the world. No trains pass through Chicago. Quite logically, it is the most popular convention city in America.

But it takes more than location to make a city large, and more than size to make it great. It takes men—men who believe in their city, men of purpose, vision, valor and determina-
tion. Chicago's motto is, "I Will." What it undertakes it accomplishes. This spirit added to its advantageous location has made Chicago the marvel of cities. Its own life portrays a century of progress.

Chicago is the home of rich industries. It produces one-eighth of the total physical requirements of the United States. It is the leading grain and livestock market. It is the dominant aviation center of the country. It is the capital of an inland empire.

Chicago leads not only as a manufacturing, trade and shipping center, but it is unsurpassed in the things that make for beauty, advancement and human welfare. It abounds in boulevards, parks, playgrounds and beaches; in hotels, restaurants, theaters, places of amusement and means of transportation; in schools, universities, clubs, libraries, hospitals, churches and homes. It leads in music, art and education. Its civic improvements are colossal. Its office buildings reach toward the skies, forming a skyline never to be forgotten. It houses all nationalities. It is the world's healthiest large city. It is an easy city in which to find one's way. Rebuilt several times since the great fire of 1871, its present baffles description. Its future surpasses prophecy.

This brief sketch of Chicago would be still less complete without a word regarding its reputation. Every large city is a strange mixture of the worst and the best. This city's century of accomplishment proves that the forces of righteousness are in the ascendancy. Chicago is neither worse nor better than most large cities. The past year has shown tremendous improvement in the city's government and morals.

THE SITE

The site of A Century of Progress, to be held in Chicago in 1933, is ideal. It is within walking distance from downtown Chicago and from a great part of its south side area. It has the natural beauty which comes from a proper proportion of land and water. It lends itself easily to the dream of architect and landscape artist. The setting will be one of entrancing beauty.

The site is on the city's beautiful lake front, extending from Twelfth place on the north to Thirty-Ninth street on the south. The buildings will all stand on man-made land, reclaimed within the last few years from Lake Michigan. The site is known as Burnham park. The mainland consists of a narrow strip of varying width and irregular shore line, three and a half miles long. It is just south of Grant park, which is Chicago's charming front lawn and pleasure ground.

The area of this most unusual location is more than six hundred acres, or about a section of land. It consists of mainland, island and lagoon. This is a larger tract than has been used for most world's fairs. It is ample for all purposes and compact enough to be convenient.

In addition to the mainland, there will be a body of filled-in land, known as Northerly island, consisting of about eighty acres. This island is one of a number that will probably be made later on as a part of the great south shore development. It extends from Twelfth street to Twenty-Third street, and parallels the mainland. The quiet lagoon lying between is from 400 to 1000 feet wide and will be spanned by three or more
bridges. Some of the most important buildings of the fair will stand on the island.

The fairground will be easy of access. There will be four great entrances, at the Grant park end on the north, at Twenty-Third street, Thirty-First street and Thirty-Ninth street.

In addition to all this, it must be remembered that there is already a world’s exposition, in permanent form, at the very entrance to the gates of A Century of Progress. Within the grounds will be the Adler planetarium, located at the extreme north end of Northerly island. No visitor will wish to miss this incomparable exhibition of the glory of the heavens. It is the only institution of its kind in America. Within the enclosure also will be the memorial stadium known as Soldier field, with a seating capacity of over one hundred thousand. This structure, a monument to civic pride, is the most beautiful of its kind in existence.

In Grant park are the Shedd aquarium and the Field museum. The aquarium is the largest in the world. It exhibits a rich collection of aquatic life. The museum contains extensive exhibits of natural history and will add value to the anthropological section of the world’s fair.

Nearby is the beautiful Buckingham fountain, whose gorgeous colorings, once seen, will always be remembered. And only a few blocks further north is the well-known Art Institute.

Just to the west, stretching northward along Michigan boulevard as far as the eye can see, is Chicago’s far-flung skyline. The ensemble must be seen in order to appreciate its magnificence.

THE PURPOSE

The purpose of A Century of Progress is just what its name implies. This gigantic exposition will undertake to show the progress of the world during the last hundred years. It will particularly seek to do this by showing in an understandable way the progress made through science and the inventions based on scientific discoveries. This will include the cooperation of capital and labor to carry out industrial enterprises. As the exhibit unfolds itself, the common mind will be able to see how science and its application to industry have affected human welfare. When it is remembered that progress in this field has been greater in the last century than in the preceding 2000 years, the greatness of the fair’s undertaking and its tremendous practical value will be appreciated.

It is the confident purpose of the fair’s management to arrange displays so that science may be divested of its world-old mysteries and the most unscientific mind may be able to understand the practical value of science as applied to everyday living. Such an accomplishment will be both interesting and instructive. It should bring to us a keener appreciation of the comforts and conveniences of modern life, as they have been reached through years of toil and research.

The fair which will open its gates in Chicago June 1 of this year will be world-wide in its appeal. The conception of its broad scope and purpose must not be confused with the local and narrower event which occasioned it. A Century of Progress would be a high-sounding name for any world’s fair if it truly represented the fair’s motif. It happens that Chicago will be a century old this year. Its growth and progress have
been so phenomenal, it is proper to celebrate the city's achievement. Since the amazing changes in the world's history during the last century have all occurred during the exact lifetime of Chicago, this city thought it proper, while celebrating its own centenary, to invite states and nations to be its guests as it undertakes to portray the progress of the greatest scientific era since history began.

The displays will be collective and not competitive. This will be an outstanding feature of the exposition. Yet the individual will have ample opportunity to show his contribution to the whole of human progress by being permitted to exhibit interesting plans, processes and products. The huge Hall of Science will be the hub from which will be best apparent the fair's complete purpose and logical arrangement.

It will be a great show. It will appeal to all classes of people. Its theme is daring and inspiring. Its exhibits will cover a wide range, showing how the basic sciences and scientific discoveries have found practical application in industry and invention. The greatest emphasis will be placed on those discoveries and inventions which have materially affected the progress of civilization and made for the betterment of living conditions. Besides the pure sciences, prominence will be given to applied science as seen in travel, transportation, electricity, communication (telegraph, telephone and radio), manufacturing, agriculture and sociology. Nothing will be overlooked in the way of beauty, variety, amusement, wonder and romance to make A Century of Progress of practical value to every visitor.

BUILDINGS AND ARCHITECTURE

Most of the buildings will have water frontage, and all will be near the water’s edge. Their location along Leif Eriksen drive and on the island is unusual. It means that the cooling breezes of Lake Michigan will temper the hottest days.

The building program is far ahead of schedule. The fair will not open until June 1. This will allow ample time for all buildings and landscaping to be completed.

The first structure to be finished was the Administration building located at the extreme north end of the grounds. It houses the executive and clerical offices, also the experimental laboratories, and is a beehive of activity.

The second buildings erected form a group known as a replica of old Fort Dearborn. This is the third fort to be built. The first two stood near the intersection of Michigan boulevard and Wacker drive. The original was the cradle of Chicago. In its carpenter shop the first church was organized, then and now known as the First Presbyterian. These buildings have been open for many months and have been visited by more than one hundred thousand people. They stand at Twenty-Sixth street and the lake.

The third building to be completed was the Travel and Transport at Thirty-Third street. The cylindrical part is a marvel of architecture and engineering. The roof is suspended from outside supports and literally "breathes" as it moves up and down with the seasons.

The massive Hall of Science is practically complete and completely glorious. It stands at Fourteenth street and the lake. It is the key building of the exposition.

Facing the Hall of Science and across the lagoon on the
island is a group of three huge buildings well on the way toward completion. They will house the exhibits of electricity, radio, telephone and telegraph.

Many other buildings of major importance are well under way. Some of them are: Agricultural, states and federal, general exhibits, Lama temple and Lincoln group. Private interests, including General Motors, Chrysler, Sears Roebuck, and American Radiator are erecting huge temples of industry. A model in the Administration building shows the layout of practically every building and plan.

The whole enterprise is soundly financed without subsidies, and money is in hand for making everything in readiness for the opening date. Most, if not all, of the buildings will be temporary.

For the most part, the buildings will be windowless, thus giving opportunity for unusual lighting effects. Most of the larger buildings will be entered on a ramp that will lead to the upper floors. This is in keeping with a well-known psychological characteristic of crowds. They naturally filter down, but not up.

The architecture will be modernistic and the buildings highly colored. The World's Columbian exposition of 1893 celebrated the discovery of America, an event of first world importance. Naturally, that fair looked backward. Its buildings were of classic style and most beautiful. The fair of 1933 will be of today and will look toward the future. Its purpose is to show progress. This will be shown by the buildings as well as by the exhibits. New materials, new designs, new colorings, new lighting effects, will be used. Their brilliant appearance will challenge the rainbow. They will put on a holiday spirit suited to the occasion. When the average visitor sees them, he will first smile, then wonder, then admire.

SOME SPECIAL FEATURES

Many special features have already been announced for A Century of Progress. Of course, the outstanding feature will be the dramatization of society's debt to science. And the drama will be fascinating. No other world's fair has ever attempted this as its dominant theme. The lighting effects, the beauty and convenience of the site, and the educational advantages will surpass those of any previous world's exhibition. But these are standard features of the fair itself and its stage setting. There will be unique features which will amuse, bewilder and instruct the visitor, and afford necessary diversion.

The fair will be opened in an amazing manner. Nearly forty years ago, when the World's Columbian Exposition was in progress, rays of light left the star Arcturus on their way to earth. They have been traveling ever since at the rate of 186,000 miles a second. On the opening day these rays will reach our planet and will be focused on a photo-electric cell in such a manner that their impact will produce impulses that will open the switches and start the exhibition.

Unique among exhibits in the anthropological section will be the complete reproduction, in dimensions, beauty and colorings, of the great quadrangle of the Nunnery and the Pyramid of the Magician. This huge structure, rising over one hundred feet high, was the crowning achievement of the Mayas in the ancient town of Uxmal in Yucatan. It will be seen exactly as it stood a thousand years ago. The Mayas were the most highly civilized aboriginal race on the western hemisphere. They had no beasts of burden, no tools but those of stone, but their architects and engineers knew much about building construction. The
Pyramid was a real skyscraper of its day. The reproduction is genuinely American and antedates the coming of European peoples to this continent.

The displays showing the development of the medical sciences will be interesting and informative. The most famous medical institutes of the world will send exhibits. The Transparent Man, a life-size robot, will no doubt be the most intriguing attraction. By pressing a button one will be privileged to see the organs of the human body in their natural positions. Other dynamic models will permit the observer to study the functions of these organs in the plainest and most lifelike manner.

The diorama will be the newest method of making many industrial exhibits. The diorama is a combination of model and painting, with perspective illusion, involving the art of sculptor, architect and painter. It is a pictorial representation in three dimensions, lending itself to the use of light and color. In the experimental laboratories it is being brought to a high degree of perfection.

There will also be awe-inspiring electrical displays; great musical festivals under eminent leadership; athletic and other sports and pageants on land and water; gardens rivaling those of ancient Rome; an old village international in character; sanitary camping grounds outside the city on highways leading to the fairgrounds; amusements, fun and mystery better than those of the famous Midway.

These and many other special features will help the visitor to understand and enjoy the dramatization of the fair’s main theme: Science discovers, invention applies, industry promotes, and all living conditions profit.

BENEFITS OF A WORLD’S FAIR

SOME expositions have a commercial purpose and others commemorate historical events. Whatever the purpose, in these strenuous times and in this advanced age, to justify the holding of a fair claiming a world appeal, it should be reasonably certain that substantial benefits will follow from it. Such a fair must have the merit of a great theme.

A Century of Progress was prompted by the fact that Chicago’s existence parallels the century covered by the fair’s drama, but the fair’s purpose transcends local pride. It is still true, however, that the city itself will be one of the best exhibits of what the century has wrought.

It is doubtful whether the ledger balance of a world’s fair ever shows a net economic profit to the city which sponsors it. It may furnish publicity, prestige and some business advantages before and during the fair, but after it is over there is likely to be a local business reaction. The city takes the risk and pays the cost.

There is a question in some minds as to whether there is a present demand for a world’s fair and whether this one will be a success. Let it be remembered that a world’s fair depends principally for its patronage on the territory immediately adjacent; and that a world’s fair is being held somewhere every few years. More than half a dozen have been held in this country during the writer’s lifetime. Just now many believe A Century of Progress is needed to divert people from their troubles, to give them new courage and confidence by demonstrating the country’s soundness, and to arouse interest by calling attention to our marvelous progress. A good show or
a great picture is often needed as a stimulus to weary minds. The world is mentally weary and needs encouragement. The unfolding of the world's progress during the last hundred years should give new hope and vision to the people. It ought to make nations more akin and break down national prejudices by increasing international understanding.

Many foreign nations will participate. Of our own states, more than forty have plans under way or have already consummated them. Our federal government is planning to be represented in a large and suitable manner. It will be helpful for states and nations to meet on a common level. Each has contributed something to the world's welfare and should be proud to have an opportunity to share in the great exhibition.

But, after all, the greatest value of a world's fair is educational. Many people will only gasp, gaze and giggle, but for the thoughtful-minded there is the opportunity of a lifetime for a liberal education. It will be a big show, but it will not be simply a greater state fair. Exhibits will not be competitive, but cooperative, related, progressive and educational. The drama always unfolds and leads to a climax. So with this fair. The great objective is to show living conditions as they are today by showing how scientific discoveries, with the application of invention and industry, have brought about these conditions. The great value of a scientific discovery is found in its practical application. Science would be only an academic pursuit if it did not find its practical application in making life more livable.

TRAVEL AND TRANSPORTATION

It is a far cry from ox cart to airplane. Yet these extremes represent the progress made in travel and transportation during the past century. The Travel and Transport building of a Century of Progress will house exhibits showing the various stages of development, including travel by horse and buggy, train, boat, street car, automobile and bus. The structure looks like a train shed and that is what the architect intended. In most of the fair buildings there is a noticeable appropriateness between building design and character of exhibit.

Most of the changes and improvements in this field, which have contributed so much to civilization, have come about in less than a century. The greatest single factor which has made these progressive improvements possible has been motive power. Humans and animals have given way to engines and applied devices, based on scientific discoveries.

Railroads had their origin in England. The first steam locomotive was built in the early part of the nineteenth century and ran on wooden planks, shod with iron plates—somewhat cruder than the present flange wheel and T rail on a well-ballasted road bed. The first railroad to carry passengers was in 1825. Passenger transportation on a large scale began just about a century ago, both in Great Britain and the United States. The Baltimore & Ohio was the first railroad in this country. But comfort, convenience and efficiency came much later. The first Pullman car was built about the time of the Civil war and was first used on the train carrying the body of President Lincoln to burial.

Wooden boats, propelled by oars and sails, had been in
use for thousands of years, but it was almost exactly a century ago that the first trans-Atlantic voyage was made entirely under steam. In the first half of the past hundred years greater progress was made in ship building and ocean transportation than in the thirty centuries preceding. The steel ships of today are marvels of construction, speed, comfort and safety. Steam and steel have been the chief emancipators of boats. They have made possible the Suez and Panama canals and have brought the world closer in more ways than one.

Electrically operated street cars were first used in Chicago only forty years ago. About 1895 the first automobile, or horseless carriage, as it was then called, had its earliest successful demonstration. Today there are 8,000,000 passenger cars within easy driving distance of Chicago. A little more than a quarter of a century ago the Wright brothers in America demonstrated the possibility of the flying machine, but successful and practical use of the airplane is within the recent memory of every reader.

Improved methods of travel and transportation have pioneered the way for man to develop new lands. They have made personal contacts quickly possible. They have greatly facilitated business. They have added to the comfort and convenience of life. And their present high state of development is due to scientific discoveries followed by promotion of inventions through industry. Science, invention, industry—these three have made a higher and happier civilization. Invention waits on discovery and industry on invention. There is a close relation between research and business. Our progress is in proportion to our needs and capacities.

COMMUNICATION

COMMUNICATION and transportation are the advance guards of civilization. Their progress during the past century has brought the world closer together and added immeasurably to the comforts of life.

The most primitive method of communication was by signs or simplified language. This required close contact. The only way information could be carried to a distance was by signals or slow travel. This meant a close relation between communication and transportation. While transportation has become exceedingly rapid, communication has almost conquered time and space. There is a natural urge to make communication outstrip travel. That is why we yell in a loud voice instead of using slow locomotion to carry our message.

The human voice is an instrument of surpassing ingenuity, beauty and usefulness, capable of great cultivation and adaptability. It gives expression to language, including wishes and feelings as well as ideas. It still plays the most important part in rapid communication, because it is human and not mechanical.

Communication must keep pace with economic and social demands. Faster and more convenient travel means more rapid communication. This is illustrated by the slow-moving mail coach, the lighter vehicles, the railroad train, the automobile and the airplane. But all these methods must consider not only mechanical preparation, with occasional undependability, but time and space as well.

The modern postal system is a most satisfactory means of communication. A letter, at small cost, is next in satisfaction and efficiency to a personal interview. It is rapid too, whether
carried by fast mail or faster airplane. This method of communication will probably endure, for it meets the needs and wishes of the masses.

The first mechanical device for saving time and almost annihilating space was the telegraph. The word means far off writing. Electricity is the agent of transmission. It was invented by Samuel F. B. Morse, an American. With improvements, the system is still in use. Its place seems to be secure. It is rapid, dependable, inexpensive, and permits prompt reply. The system girdles the earth, over land and under sea. The foundation of the present system was laid in 1836, but it was not until 1844 that congress made an appropriation to build a line between Washington and Baltimore. The first message consisted of the memorable words, “What hath God wrought?” The telegraph, telephone and radio are typical of what A Century of Progress will show—the development of inventions based on scientific discoveries.

The telephone, meaning far-off sound, although not less mechanical than the telegraph, but more human, was conceived almost a century ago. Alexander Graham Bell was the inventor of the present magnetic telephone. He first exhibited it at the Centennial Exposition in 1876. Since then improvements have brought it to seeming perfection. A conversation by telephone is next in satisfaction to one face to face.

In more recent years the wireless method of communication literally jumps across chasms of space. The radio, a one-way medium, is almost uncanny in its accomplishments. By it information may be disseminated around the world with lightning velocity. A speaker may reach an audience, not of thousands, but of millions.

For immediate transmission, to a world audience, of news, entertainment and instruction, in natural voice tones, the radio is the marvel of the age.

AGRICULTURE

SINCE history began, agriculture has been the most important industry in the world. Directly or indirectly, it provides most of the materials of the three human essentials—food, clothing and shelter. Without it, large cities could not exist; nor victories be won; nor civilization advanced.

Our first knowledge of agriculture is found in the history of the ancient Egyptians. They had domestic animals; raised grain, flax and vegetables; irrigated the land; had wooden plows, hoes, harrows, rollers and threshing-floors. Palestine and Greece borrowed their knowledge of husbandry from Egypt and made little improvement. The Romans were the pioneer agriculturists of Europe. They loved and dignified agriculture and extended it with their conquests. Their herds, flocks, grains and fruits were extensive. Moreover, they knew how to make good use of all the bounties of the earth. Virgil, by direction of the emperor, sang the glories of the fields, domestic animals and bees.

The two principal branches of farming are mentioned in Genesis 4:2. “Abel was a keeper of sheep, but Cain was a tiller of the ground.” In its broadest sense, agriculture includes horticulture, forestry, stock-raising and dairying, as well as farming. The science and art of agriculture have become highly specialized and make demand on nearly every branch of human knowledge, including engineering, chemistry, meteorology, botany, zoology and geology. The agriculturist must have knowledge of buildings, machinery, irrigation, and the development of roads, woods, pastures, lakes and streams.

Farming was carried on in a crude way without much im-
provement for thousands of years. The plow, the hoe and the sickle are the pioneer agricultural tools of civilized mankind. All modern farm machinery is an application of their principles. The ripened grain must be prepared for food by threshing and grinding. Modern threshing-machines and grist mills take the place of primitive methods. It was just about a century ago that marked improvement in farm machinery began. For much of this we are indebted to the inventive genius of Cyrus H. McCormick. First the grain cradle supplanted the sickle. Then followed the reaper, self-binder and combine, which cuts, threshes and delivers in one process. The power tractor took the place of the hand plow. We also have improved machinery for haying and seeding. But has modern farm machinery proved an economic advantage to the average farmer over the simpler and less expensive machinery of fifty years ago?

While agriculture is the oldest and most important of human occupations, it did not become a science until a comparatively recent time. In America, Michigan, in 1857, was the first state to provide an agricultural college. Today every state has one. Through aid of the federal government we also have many agricultural experiment stations. Educational aids to agriculture during the last century have done much for the farmer who has taken advantage of them. They have also brought about a great change in the relationship to other classes.

Farming includes many processes. Nature and the farmer's skill and industry largely determine the harvest. Marketing is agriculture's greatest problem. The fruits of the soil are abundant, yet countless thousands go hungry. A Century of Progress, through organized cooperation, promises diligent study "of the distribution and sale of the products of the farm."

COMFORTS OF LIVING

If our grandparents were to come back to earth and see the regimen of life as it is today, they would think themselves in a different world. And they would be right. Indeed, the last century has brought more changes than any preceding thousand years in the world's history. These changes have made for betterment in all living conditions. They have benefited the masses. Most of them are the result of scientific discoveries, and measure the value of the scholar's contribution to human welfare.

We who are living today do not appreciate these changes and their consequent benefits. They have come upon us too gradually. Many of the younger generation never knew the lack of them. They are accustomed to take them for granted as something to which they are entitled. They do not know the value of the discipline of not having, nor the resulting appreciation of the older generation still living. In fact, most of the present-day comforts and conveniences of living have come during the lifetime of the man of three score and ten.

What are some of these outstanding contributions to human welfare? With no attempt to name them in the order of their importance, here are a few.

The telephone is perhaps the greatest business and social convenience of our age. In practical use it is only about fifty years old. As life is constituted today, it is a necessity. To its mechanical device is added the element of the human voice. It is satisfying and almost instantaneous.

Next in importance as an aid to communication is the telegraph. It has been in use a considerably shorter time than a century. Supplemented by the telephone, it covers the civilized world.
The radio is the foremost mechanical device of any age. Its bewildering efficiency is incomparable. It has added rich satisfaction to life.

The railroad, steamboat, automobile and airplane have revolutionized travel and transportation, and have produced gigantic industries. Hard roads, one of our greatest blessings, have logically followed the almost universal use of the automobile.

The fiftieth anniversary of the electric light was recently observed. As late as the World's fair of 1893, the incandescent bulb was still a novelty, although used extensively in that exposition. A Century of Progress will make the greatest display of illumination the world has ever seen. This will be done largely by the use of the neon tube.

For novelty, entertainment and instruction, nothing surpasses the moving and talking picture. It appeals to the multitude.

New and improved farm machinery has revolutionized agriculture.

Plumbing and steam fitting, unknown a century ago, have added immeasurably to sanitation and home comforts. The bathtub is the mark of modern civilization.

Progress in medicine and surgery has lengthened life and brought healing to suffering humanity.

Perhaps greater comforts have been supplied by a thousand lesser things, so commonplace we scarcely think of them—stoves, fountain pens, sewing-machines, electrical refrigerators, kitchen utensils, new foods and so on ad infinitum.

The world is dizzy with new devices. They may not have added so much to human happiness, but they have made large contribution to pleasure, comfort, convenience and progress. To discover what the future holds is the Creator's challenge to the genius of man.

Light

It is difficult to define light, understand its cause or explain its theory. There was once a college freshman who said he did know all about it, but had forgotten. Certainly light is the essential condition of vision, and necessary to the progress of civilization. It is most familiar to us when used to dispel darkness in order that we may see. But the use of artificial light and lighting methods for the purpose of general illumination is still in its infancy.

A Century of Progress will use new and daring methods of lighting. A slight forecast of what these will be may now be seen in the Hall of Science. Illumination will be the outstanding marvel of the fair. It follows that the fair's resplendent beauty will be seen at night. Thomas E. Tallmadge, distinguished Chicago architect and scholar, writing in Vanity Fair with particular reference to lighting effects, says "the Exposition will be the most beautiful thing that man has ever created."

The last hundred years have shown striking changes in agents of lighting and in lighting methods. Time was when the student literally pored over the "midnight oil" found in a tallow dip. Subsequently, candles were a decided improvement. Then came the kerosene lamp, followed by gas with new and better burners. Today electricity is the commonly used agent of lighting. It has the advantage of cleanliness, convenience, adaptability and brilliancy.

The great advantage of electricity is that it lends itself to so many uses. It may be used for light, heat and power. As an agent for lighting, it is adaptable in a great variety of ways. First was the incandescent bulb, now more than fifty years old
and still in its glory for interior use. But its unsightliness and glare are no longer necessary. Bulbs may be hidden and subdued by indirect lighting systems. Electric lights may now be used decoratively and made to represent the most gorgeous speculates. This is particularly true of the neon tube the use of which now is seen chiefly in signs. It will be used extensively for illumination of A Century of Progress. Except for daylight appearance, paint is no longer needed for ornamentation. An ever-changing variety of colors may instantly be produced by use of electric lights, especially in red, blue, yellow and green.

A Century of Progress will be abreast of the times. It will be an exhibition portraying scientific values translated into present-day utilities. It is of today. It seeks to show the progress of science during the last century, a period which, after all, is only the today of the world’s old age. Fortunately the world does not all grow old at one time. New nations, like trees of the forest, spring from the fertile soil of old and decadent civilizations. Our own country is the latest and best example of challenging youth. Since the fair will be American with a world-wide appeal, it must be modern, practical and gay. It must disregard the somberness of old age and assume the decoration of flaming youth. It will be colorful. It is no hyperbole to say that its myriad lights and weird combinations will produce another veritable wonder of the world.

MUSEUM OF SCIENCE AND INDUSTRY

THE Museum of Science and Industry is to be housed in the old Fine Arts building of the World's Columbian exposition of 1893. Thus a new institution of tremendous educational value will form a fitting connecting link between two world's fairs, separated by a span of forty eventful years. It will appropriately supplement the Century of Progress exhibits, for the museum will also show the onward march of science and invention.

The building itself stands in the northern end of Jackson park, near Fifty-Seventh street and Lake Michigan, within the site of the fair of 1893 and a little more than two miles south of the southern limits of the fair of 1933. It is the one great remaining monument of the incomparable World’s Columbian exposition.

The Fine Arts building was designed by Charles B. Atwood. It is regarded not only as one of America's most beautiful structures, but also as one of the “architectural masterpieces of all time.” Like other buildings of its day, it was designed to be only temporary. Its walls were of brick, sheathed with staff. For a few years after the fair it was occupied by the Field Columbian museum. After the museum was moved to its own home in Grant park, the building was vacant and soon began to lose its exterior beauty. It had no practical use, but the South park commissioners allowed it to stand. Their vision was wiser than they knew, for in due time it was destined to serve a magnificent purpose then undreamed of.

Julius Rosenwald was Chicago’s greatest philanthropist.
In his world travels he visited the famous Deutches museum in Munich. His study of this and similar European institutions crystallized his purpose to add to his national benefactions a similar museum for his own Chicago. But where should it be housed? Then it was that all eyes turned to this neglected temple of beauty. It needed only to be made ready in permanent and fireproof form. The people voted a bond issue of $5,000,000 for the purpose of reconstruction. Mr. Rosenwald endowed the new institution outright with $3,000,000 and later provided for an added sum, sufficient to prepare the building and equip the museum. Modestly, he declined to have the museum directly bear his name, so it was incorporated as the Museum of Science and Industry: Founded by Julius Rosenwald. This colossal structure covers six acres of ground, has 580,000 square feet of space and will contain nearly ten miles of exhibits. Its setting is one of silent beauty and regal splendor.

The museum is the only one of its kind in America. It will tell the "story of man's mechanical evolution by aid of science." It will have much to do with science as applied in industrial engineering. It will require days for a casual visit and weeks for an intensive study. The plan will cover a wide range, showing the relation of science to human progress and welfare. In sequences, like a moving picture, the plan will cover the fields of physics, chemistry, mathematics, geology, mining industries, agriculture, textiles, forestry, motive power, transportation, graphic arts, communication, planning and building of a city. It will show man's mastery over nature, resulting in material benefits to present-day civilization.
HiS booklet by Mr. Oscar E. Aleshire of Chicago, Head Banker, Modern Woodmen of America, is presented with the compliments of

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