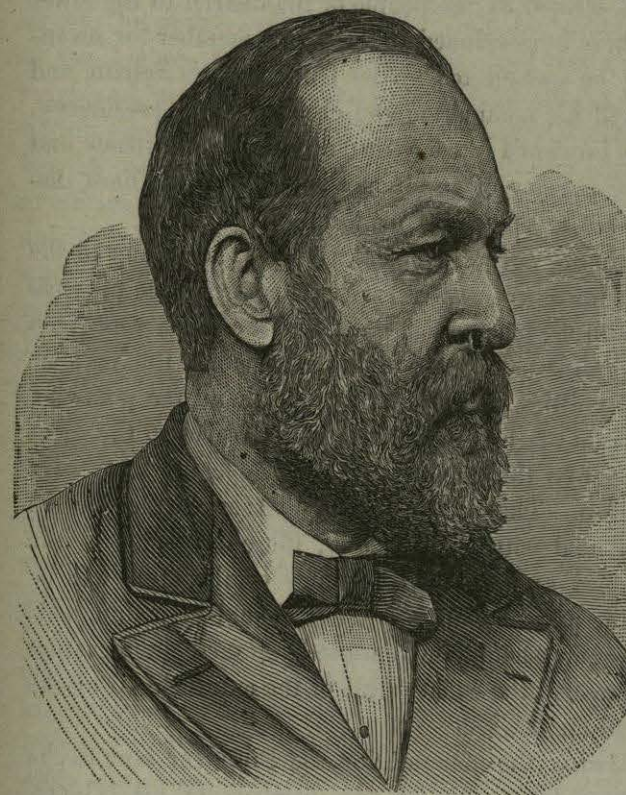


During the administration of President Hayes several eminent Americans passed from the scene of their earthly activities. On the 1st of November, 1877, the distinguished Senator Oliver P. Morton, of Indiana, after battling for many years against the deadly encroachments of paralysis, died at his home in Indianapolis. His death, though not unforeseen, was much lamented. Still more universally felt was the loss of the great poet and journalist, William Cullen Bryant, who, on the 12th of June, 1878, at the advanced age of eighty-four, passed from among the living. For more than sixty years his name had been known and honored wherever the English language is spoken. His life had been an inspiration, and the brightest light of American literature was extinguished in his death. On the 19th of December, in the same year, the illustrious Bayard Taylor, who had recently been appointed American minister to the German Empire, died suddenly in the city of Berlin. His life had been exclusively devoted to literary work; and almost every department of letters, from the common tasks of journalism to the highest charms of poetry, had been adorned by his genius. His death, at the early age of fifty-four, left a gap not soon to be filled in the shining ranks of literature. On the 1st day of November, 1879, Senator Zachariah Chandler, of Michigan, one of the organizers of the Republican party, and a great leader of that party in the times of the civil war, died suddenly at Chicago; and on the 24th day of February, 1881, another senator, the distinguished Matt. H. Carpenter, of Wisconsin, after a lingering illness, expired at Washington. One by one the strong men who battled for the preservation of American nationality in the stormy days of the civil war are passing or have passed into the land of rest.

CHAPTER LXX.

ADMINISTRATIONS OF GARFIELD AND ARTHUR.

JAMES A. GARFIELD, twentieth President of the United States, was born at Orange, Cuyahoga county, Ohio, November 19th, 1831. By the death of his father he was left in infancy to the sole care of his mother and to the rude surroundings of a backwoods home.



JAMES A. GARFIELD.

Blest with great native energy and an abundance of physical vigor, the boy gathered from country toil a sound constitution, and from country schools the rudiments of education. In boyhood his services were in frequent demand by the farmers of the neighborhood—for he developed unusual skill as a mechanic. Afterwards he served as a driver and pilot of a canal boat plying the

Ohio and Pennsylvania canal. At the age of seventeen he attended the High School in Chester, where he applied himself with great diligence, extending his studies to algebra, Latin, and Greek. In the fall of 1851, he entered Hiram College, in Portage county, Ohio, where he remained as student and instructor until 1854. In that year he entered

Williams College, from which, in August of 1856, he was graduated with honor. He then returned to Ohio, and was made first a professor and afterwards president of Hiram College. This position he held until the outbreak of the civil war when he left his post to enter the army. Meanwhile he had studied law, imbibed a love for politics, and been elected to the Ohio State Senate.

As a soldier Garfield was first made lieutenant-colonel and afterwards colonel of the Forty-second regiment of Ohio volunteers. Advancing with his men to the front he was soon promoted to a brigadier generalship, and did good service in Kentucky and Tennessee. He was made chief of staff to General Rosecrans, and bore a distinguished part in the battle of Chickamauga. Soon afterwards, while still in the field, he was, in 1862, elected by the people of his district to the lower house of Congress, where he continued to serve as a member for seventeen years. In 1879 he was elected to the United States Senate, and hard upon this followed his nomination and election to the presidency. American history has furnished but few instances of a more steady and brilliant rise from the poverty of an obscure boyhood to the most distinguished elective office in the gift of mankind.

On the 4th of March, 1881, President Garfield, according to the custom, delivered his inaugural address. A retrospect of the progress of American civilization during the last quarter of a century was given and the country congratulated on its high rank among the nations. The leading topics of politics were briefly reviewed, and the policy of the executive department of the government with respect to the great questions likely to engross the attention of the people, set forth with clearness and precision. The public school system of the United States should be guarded with jealous care; the old wounds of the South should be healed and the heartburnings of the civil war be buried in oblivion; the present banking system should be maintained; the practices of polygamy should be repressed; Chinese immigration should be curbed by treaty; the equal rights of the enfranchised blacks should be asserted and maintained.

On the day following the inauguration the President sent to the Senate for confirmation the names of the members of his cabinet. The nominations were, for secretary of state, James G. Blaine, of Maine; for secretary of the treasury, William Windom, of Minnesota; for secretary of war, Robert T. Lincoln, of Illinois; for secretary of the navy, William H. Hunt, of Louisiana; for secretary of the interior, Samuel J. Kirkwood, of Iowa; for attorney-general, Wayne MacVeagh, of Pennsylvania; for postmaster-general, Thomas L. James, of New

York. These nominations were promptly confirmed, and the new administration entered upon its course with omens of an auspicious future.

One of the first issues which engaged the attention of the government after Garfield's accession to the Presidency, was the question of REFORM IN THE CIVIL SERVICE. This question had been inherited from the administration of Hayes, by whom several spasmodic efforts had been made to introduce better methods in the selection of men to fill the appointive offices of the United States. The real issue was whether the choice of the officials of the government should be made on the grounds of the character and fitness of the candidate, or on the principle of distributing political patronage to those who had best served the party—whether men should be promoted from the lower to the higher grades of official life, and retained according to the value and proficiency of the service rendered, or be elevated to position in proportion to their success in carrying elections and maintaining the party in power. The members of Congress to whom the help of efficient supporters in their own districts and states seemed essential, and by whom the patronage of the government had been dispensed since the days of Jackson, held stoutly to the old order, unwilling to relinquish their influence over the appointing power. President Hayes, after vainly attempting to establish the opposite policy, abandoned the field near the close of his administration. The national Republican platform of 1880, however, vaguely endorsed "civil service reform" as a principle of the party, and some expectation existed that President Garfield would follow the policy of his predecessor. With the incoming of the new administration the rush for office was unprecedented in the previous history of the country. The politicians and place-seekers, who claimed to have "carried the election," swarmed into Washington and thronged the executive mansion, clamoring for office, until, for the time, all plans and purposes of reform in the civil service were quite crushed out of sight and forgotten. As always hitherto, ambition for political power and hunger for the spoils of office triumphed over the better sense of the American people.

The prospects of the new administration were soon darkened with political difficulties. A division arose in the ranks of the Republican party, threatening the disruption and ruin of that organization. The two wings of the Republicans were nicknamed the "Half-breeds" and the "Stalwarts:" the latter, headed by Senator Conkling, of New York, being the division which had so resolutely supported General Grant for the Presidency in the Chicago Convention; the

former, led by Mr. Blaine, now Secretary of State, and indorsed by the President himself, had control of the government, and were numerically stronger than their opponents. The Stalwarts claimed the right of dispensing the appointive offices of the Government, after the manner which prevailed for several preceding administrations; that is, the distribution of the offices in the several States, under the name of patronage, by the Senators and Representatives of those States in Congress. The President, supported by his division of the party, and in general by the reform element in politics, insisted on naming the officers in the various States according to his own wishes and what he conceived to be the fitness of things.

The chief clash between the two influences in the party occurred in respect to the offices in New York. The collectorship of customs for the port of New York is the best appointive office in the gift of the Government. To fill this position the President appointed Judge William Robertson, and the appointment was bitterly antagonized by the New York Senators, Roscoe Conkling and Thomas C. Platt, who, failing to prevent the confirmation of Robertson, resigned their seats, returned to their State, and failed of a reelection. The breach thus effected in the Republican ranks was such as to threaten the dismemberment of the party.

Such was the condition of affairs at the adjournment of the Senate in June. A few days afterward the President made arrangements to visit Williams College, where his two sons were to be placed at school, and to pass a short vacation with his sick wife at the sea-side. On the morning of July 2d, in company with Secretary Blaine and a few friends, he entered the Baltimore depot at Washington, preparatory to taking the train for Long Branch, N. J. A moment afterward he was approached by a miserable political miscreant named Charles Julius Guiteau, who, from behind, and unperceived, came within a few feet of the company, drew a pistol, and fired upon the chief-magistrate of the Republic. The aim of the assassin was too well taken, and the second shot struck the President centrally in the right side of the back, inflicting a dreadful wound. The bleeding chieftain was quickly borne away to the executive mansion, and the vile wretch who had committed the crime was hurried to prison.

For a week or two the hearts of the American people vibrated between hope and fear. The best surgical aid was procured, and bulletins were daily issued containing a brief outline of the President's condition. The conviction grew day by day that he would ultimately recover. Two surgical operations were performed with a view of im-

proving his chances for life; but a series of relapses occurred, and the President gradually weakened under his sufferings. As a last hope he was, on the 6th of September, carefully conveyed from Washington City to Elberon, where he was placed in a cottage only a few yards from the surf. Here, for a brief period, hope again revived, but the symptoms were aggravated at intervals, and the patient sank day by day.

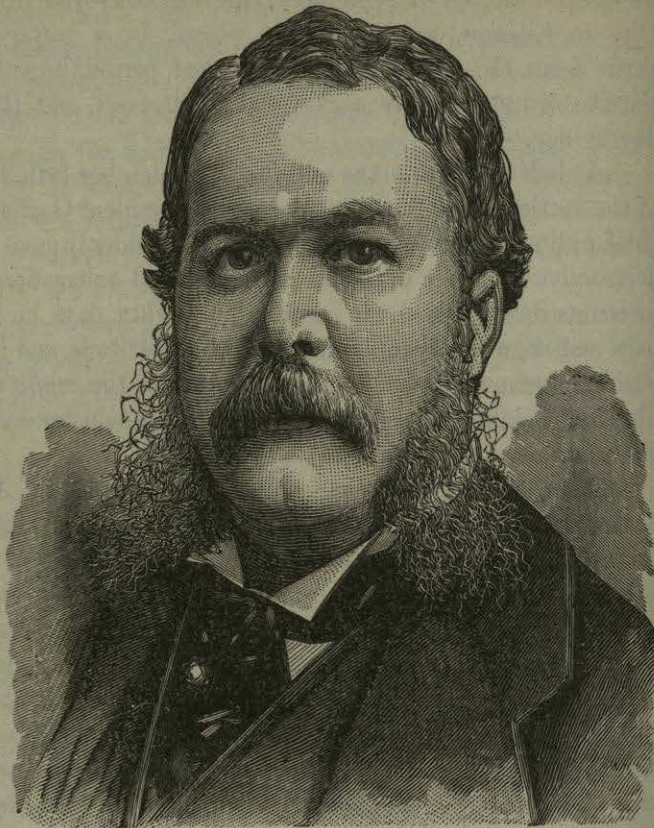
At half past ten on the evening of September 19th, the anniversary of the battle of Chickamauga, in which President Garfield had won his chief military reputation, his vital powers suddenly gave way under the destructive influence of blood poisoning and exhaustion, and in a few moments death closed the scene. For eighty days he had borne the pain and anguish of his situation with a fortitude and heroism rarely witnessed among men. The dark shadow of the crime which had laid him low heightened rather than eclipsed the luster and glory of his great and exemplary life.

On the day following this deplorable event Vice-President Arthur took the oath of office in New York, and immediately repaired to Washington. For the fourth time in the history of the American Republic the duties of the presidency had been devolved by death upon the man constitutionally provided for such an emergency. The heart of the people, however, clung for a time to the dead rather than to the living President. The funeral of Garfield was observed first of all at Washington, whither the body was taken and placed in state in the rotunda of the Capitol. Here it was viewed by tens of thousands of people during the 22d and 23d of September. In his life-time the illustrious dead had chosen as the place of his burial the Lakeview Cemetery, at Cleveland, Ohio, and thither, on the 24th of the month, the remains were conveyed by way of Philadelphia and Pittsburgh. As in the case of the dead Lincoln, the funeral processions and ceremonies were a pageant, exhibiting every-where the loyal respect and love of the American people for him who had so lately been their pride. On the 26th of September his body was laid in its final resting-place. The day of the burial was observed throughout the country in great assemblies gathered from hamlet and town and city, all anxious to testify, by some appropriate word or token, their sorrow for the great national calamity, and their appreciation of the grand example of James A. Garfield's life.

Chester A. Arthur, called by this sad event to be the President of the United States, was born in Franklin County, Vermont, October 5, 1830. He is of Irish descent, and was educated at Union College, from which

institution he was graduated in 1849. For a while he taught school in his native State, and then came to New York City to study law.

Here he was soon admitted to the bar and rapidly rose to distinction. During the Civil War he was Quartermaster-General of the State of New York, a very important and trying office, which he filled with great credit to himself and the government. After 1865 he returned to the practice of law, and was appointed Collector of Customs for the



CHESTER A. ARTHUR.

port of New York in 1871. This position he held until July, 1878, when he was removed by President Hayes. Again he returned to his law practice, but was soon called by the voice of his party to be a standard-bearer in the presidential canvass of 1880. His election to the vice-presidency followed, and then, by the death of President Garfield, he rose to the post of chief honor among the American people.

The assumption of the duties of his high office by President Arthur was attended with but little ceremony or formality. On the 22d of September the oath of office was again administered to him in the Vice-President's room, in the Capitol, Chief-justice Waite officiating. After this, in the presence of the few who were gathered in the apartment, he delivered a brief and appropriate address, referring,

in a touching manner, to the death of his predecessor. Those present—including General Grant, ex-President Hayes, Senator Sherman, and his brother the General of the army—then paid their respects, and the ceremony was at an end.

In accordance with the custom, the members of the Cabinet, as constituted so recently by President Garfield, immediately tendered their resignations. These were not at once accepted, the President instead inviting all of the members to retain their places as his constitutional advisers. For the time all did so except Mr. Windom, Secretary of the Treasury, who was succeeded by Judge Folger, of New York. Mr. MacVeagh, the Attorney General, also resigned a short time afterward, and the President appointed as his successor Hon. Benjamin H. Brewster, of Philadelphia. The next to retire from the Garfield Cabinet were Mr. Blaine, Secretary of State, and Mr. James, Postmaster General, who were succeeded in their respective offices by Hon. F. T. Frelinghuysen, of New Jersey, and Hon. Timothy A. Howe, of Wisconsin. Mr. Lincoln—so great was the charm of that illustrious name—remained, as if by common consent, at the head of the Department of War. Besides those changes in his constitutional advisers, not much disposition to revolutionize the policy of the Government was manifested by the new administration; and the people generally, without respect to party lines, gave a tolerably cordial support to him who had been so suddenly called to the chief magistracy of the Union.

From its predecessor the administration of President Arthur inherited not a few complications and troubles. The chief of these was the series of important State trials relating to the alleged STAR ROUTE CONSPIRACY. Under the recent conduct of affairs in the Post-office Department of the Government there had been organized a class of fast mail routes, known as the Star Routes, the ostensible object being to carry the mails with rapidity and certainty into certain distant and almost inaccessible portions of the Western States and Territories. The law governing the letting of mail contracts was of such sort as to restrict the action of the Postmaster General and his subordinates to definite limits of expense; but one clause of the law gave to the Department the discretionary power to "expedite" such mail routes as seemed to be weaker and less efficient than the service required. This gave to certain officers of the Government the opportunity to let the contracts for many mail lines at a *minimum*, and then under their discretionary power to *expedite* the same lines into efficiency at exorbitant rates—the end and aim being to divide the spoils with the contractors.

This alleged Star Route conspiracy to defraud the Government was

unearthed during the Garfield administration, and Attorney-General MacVeagh was directed by the President to prosecute the reputed conspirators. Indictments were found by the Grand Jury against ex-United States Senator Stephen W. Dorsey, of Arkansas; second assistant Postmaster-General Thomas J. Brady, of Indiana, and several others of less note. Mr. MacVeagh, however, seemed in the conduct of the Department of Justice to act with little spirit and no success; but on the coming into office of Attorney-General Brewster, matters were quickened into sharp activity, and those indicted for conspiracy were brought to trial. After several weeks of stormy prosecution and defence, the case went to the jury, who brought in a verdict absurdly convicting certain subordinates of participating in a conspiracy which could not have existed without the guilt of their superiors. This scandal, occupying the public mind in the summer of 1882, contributed much to the defeat of the Republican party in the State elections of the November following—a defeat so general as to remand by overwhelming majorities the control of the Congress of the United States to the Democrats.

It is fortunate that the pen of history is sometimes occupied with events of a nature and tendency wholly different from the public affairs of the State. Perhaps the most striking feature of the civilization of our times is exhibited in THE ADVANCEMENT OF SCIENCE, as illustrated in the thousand applications of discovery and invention to the wants of mankind. At no other age in the history of the world has the practical knowledge of nature's laws been so rapidly and widely diffused; and at no other epoch has the subjection of natural relations to the will of man been so wonderfully displayed. The old life of the human race is giving place to the new life, based on science, and energized by the knowledge that the conditions of man's environment are as benevolent as they are immutable.

Vain would it be to attempt to enumerate all the ways in which the beneficent work of science has been extended in our day; but perhaps a specification of a few of the most remarkable of the recent applications of scientific knowledge may prove of interest to the reader of our current history.

It has remained for the present to solve the problem of oral communication between persons at a distance. A knowledge of the laws of sound and electricity has enabled the scientists of our day to transmit, or at least reproduce, the human voice at a distance of hundreds or even thousands of miles. The history of the TELEPHONE will ever stand as a perpetual reminder to after ages of the inventive skill and scientific

progress of the last quarter of the nineteenth century. This instrument, like many similar inventions, seems to have been the work of several ingenious minds directed at nearly the same time to the same problem. The solution, however, may be properly accredited to Mr. Elisha P. Gray, of Chicago, and Professor A. Graham Bell, of the Massachusetts Institute of Technology. It should be mentioned, however, that Professor A. C. Dolbear, of Tufts College, Massachusetts, and Mr. Thomas A. Edison, of Menlo Park, New Jersey, have also succeeded in solving the original difficulties in the way of telephonic communication, or at least in answering practically some of the minor questions in the way of success.

The Telephone may be defined as an instrument for the reproduction of sounds, particularly the sounds of the human voice, by the agency of electricity, at long distances from the origin of the vocal disturbance. It is now well known that sound consists of a wave agitation, communicated through some medium to the organ of hearing. Every particular sound has its own physical equivalent in the system of waves in which it is written. The only thing that is necessary in order to carry a sound in its integrity to any distance is to transmit its physical equivalent, and to redeliver that equivalent to some or-



THE TELEPHONE.

gan of hearing capable of receiving it. Upon this idea the Telephone is created. Every sound which falls by impact upon the sheet-iron disk of the instrument communicates thereto a sort of tremor; this tremor causes the disk to approach and recede from the magnetic pole placed just behind the diaphragm. A current of electricity is thus induced, pulsates along the wire to the other end, and is delivered to the metallic disk of the second instrument, many miles away, just as it was

produced in the first. The ear of the hearer receives from the second instrument the exact physical equivalent of the sound or sounds which were delivered against the disk of the first instrument, and thus the utterance is received at a distance just as it was given forth.

As already said, the invention of the Telephone stands chiefly to the credit of Professors Gray and Bell. It should be recorded that as early as 1837 the philosopher Page succeeded, by means of electromagnetism, in transmitting *musical* tones to a distance. It was not, however, until 1877 that Professor Bell, of the Massachusetts Institute of Technology, at a public lecture given at Salem, astonished his audience, and the whole country as well, by receiving and transmitting vocal messages from Boston, twenty miles away. Incredulity had no more a place, as it respected the feasibility of talking to others at a distance. The experiments of Mr. Gray at Chicago, a few days later in the same month, were equally successful. Messages were distinctly transmitted between that city and Milwaukee, a distance of eighty-five miles; nor could it be longer doubted that a new era in the means of communication had come. The Bell Telephone, with many modifications and improvements, has sprung into rapid use. Within reasonable limits of distance the new method of transmitting intelligence by direct vocal utterance is rapidly taking the place of all slower and less convenient means of inter-communication. The appearance of this simple instrument is one of the many harbingers of that auspicious time when the constant interchange of thought and sentiment between man and man, community and community, nation and nation, shall conduce to the peace of the world and the goodfellowship of all mankind.

From the Telephone to the PHONOGRAPH was but a step. Both instruments are based upon the same principle of science. The discovery that every sound has its physical equivalent in a wave or agitation which affects the particles of matter composing the material through which the sound is transmitted, led almost inevitably to the other discovery of *catching* and *retaining* that physical equivalent or wave in the surface of some body, and to the reproduction of the original sound therefrom. Such is the fundamental principle of the interesting, but thus far little useful, instrument known as the Phonograph. The same was invented by Thomas A. Edison in the year 1877. The Phonograph differs considerably in structure and purpose from the Vibrograph and the Phonautograph which preceded it. The latter two instruments were made simply to *write* sound vibrations; the former to reproduce *audibly* the sounds themselves.

The Phonograph consists of three principal parts: the sender, or funnel-shaped tube, with its open mouth-piece standing toward the operator; the diaphragm and stylus united therewith, which receive the sound spoken into the tube; and, thirdly, the revolving cylinder, with its sheet-coating of tin foil laid over the surface of the spiral groove, to receive the indentations of the point of the stylus. The mode of operation is very simple. The cylinder is revolved and the point of the stylus when there is no sound-agitation in the funnel or mouth-piece makes a smooth continuous depression in the tin-foil over the spiral groove. But when any sound is thrown into the mouth-piece the iron disk or diaphragm is agitated; this agitation is carried through the stylus and written in irregular marks, dots, and peculiar figures in the tin-foil groove. When the utterance which is to be reproduced has been completed the instrument is stopped, the stylus thrown back from the groove, and the cylinder revolved backward to the place of starting. The stylus is now returned to its place in the groove, and the cylinder is revolved at the same rate of rapidity as before. As the point of the stylus plays up and down in the indentations and through the figures of the tin-foil produced by its own previous agitation, a quiver exactly equivalent to that which was produced by the utterance in the mouth-piece is now communicated backward to the diaphragm, and by it is flung through the mouth-piece into the air. This agitation is, of course, the exact physical equivalent of the original sound, or more properly *is* the sound itself. Thus it is that the Phonograph is made to talk, to sing, to cry, to utter, in short, any sound sufficiently powerful to produce a perceptible tremor in the mouth-piece and diaphragm of the instrument.

Some experiments have already been made looking to the utilization of the Phonograph as a practical addition to the civilizing apparatus of our times. It has been proposed to stereotype the tin-foil record of what has been uttered in the mouth-piece, and thus to preserve in a permanent form the potency of vanished sounds. If this could be successfully and perfectly accomplished the invention of the Phonograph would, doubtless, take rank with the greatest of the age, and might possibly revolutionize the whole method of learning. It would seem, indeed, that nature has intended the *ear*, rather than the *eye*, as the organ of education. It seems to be against the everlasting fitness of things that the eyes of all mankind should be strained, weakened, permanently injured, in childhood with the unnatural tasks which are imposed upon that delicate organ. It would seem to be more in accordance with the nature and capacities of man and the general