

Partridge (E.L.)

REMARKS
ON THE
HISTORY AND TREATMENT OF TWO CASES
OF
FACE-PRESENTATION.

BY
EDWARD L. PARTRIDGE, M. D.
NEW YORK.

[REPRINTED FROM THE NEW YORK MEDICAL JOURNAL, MARCH, 1877.]

NEW YORK:
D. APPLETON AND COMPANY,
549 & 551 BROADWAY.
1877.



MEDICAL WORKS

PUBLISHED BY D. APPLETON & CO.

Anstie on Neuralgia. 1 vol., 12mo.....	Cloth, \$2 50
Bartholow's Treatise on Therapeutics.....	" 5 00
Barker on Puerperal Diseases. 1 vol.....	" 5 00
Barker on Sea-Sickness. 1 vol., 16mo.....	" 75
Barnes's Obstetric Operations. 1 vol., 8vo.....	" 4 50
Bellevue and Charity Hospital Reports. 1 vol., 8vo.....	" 4 00
Bennet's Winter and Spring on the Mediterranean. 1 vol., 12mo.....	" 3 50
Bennet on the Treatment of Pulmonary Consumption. 1 vol., 8vo.....	" 1 50
Billroth's General Surgical Pathology and Therapeutics. 1 vol., 8vo.....	" 5 00
Buck's Contributions to Reporative Surgery 1 vol., 8vo.....	" 3 00
Bastian on the Common Forms of Paralysis from Brain Diseases.....	" 1 75
Bulkley's (L. D.) Acne; its Pathology, etc.....	(In press.)
Combe on the Management of Infancy. 1 vol., 12mo.....	Cloth, 1 50
Carpenter's Mental Physiology.....	" 3 00
Chauveau's Comparative Anatomy of the Domesticated Animals. Edited by George Fleming, F. R. G. S., M. A. L. 1 vol., 8vo, with 450 Illustrations.....	" 6 00
Davis's (Henry G.) Conservative Surgery.....	" 3 00
Dickson on Medicine in Relation to the Mind.....	" 3 50
Elliott's Obstetric Clinic 1 vol., 8vo.....	" 4 50
Ecker's Convulsions of the Brain.....	" 1 25
Flint's Physiology 5 vols., 8vo.....	Cloth, per vol. \$4 50; Sheep, 5 50
Flint's Text-Book of Human Physiology. 1 vol., 8vo.....	Cloth, \$6 00;
Flint's Manual on Urine. 1 vol., 12mo.....	Cloth, 1 00
Flint's Relations of Urea to Exercise. 1 vol., 8vo.....	" 1 00
Frey's Histology and Histo-Chemistry of Man.....	" 5 00
Hoffmann's Manual of Medicinal Chemicals.....	" 3 00
Holland's (Sir Henry) Recollections of Past Life. 1 vol., 12mo.....	" 2 00
Howe on Emergencies. 1 vol., 8vo.....	" 3 00
Howe on the Breath, and the Diseases which give it a Fetid Odor.....	" 1 00
Huxley on the Anatomy of Vertebrated Animals. 1 vol.....	" 2 50
Huxley and Youmans's Physiology and Hygiene. 1 vol., 12mo.....	" 1 75
Hammond's Insanity in its Relations to Crime. 1 vol., 8vo.....	" 1 00
Hammond's Diseases of the Nervous System. 1 vol., 8vo.....	Cloth, \$6 00; Sheep, 7 00
Hammond's Clinical Lectures on Diseases of the Nervous System. 1 vol., 8vo.....	" 3 50
Hamilton's (A. McL.) Electro-Therapeutics. 1 vol., 8vo.....	Cloth, 2 00
Johnston's Chemistry of Common Life. 2 vols., 12mo.....	" 3 00
Keyes's (E. L.) Tonic Treatment of Syphilis.....	" 1 00
Letterman's Recollections of the Army of the Potomac. 1 vol., 8vo.....	" 1 00
Lewes's Physiology of Common Life. 2 vols., 12mo.....	" 3 00
Marke on Diseases of the Bones. 1 vol., 8vo.....	" 4 50
Maudsley on the Mind. 1 vol., 8vo.....	" 3 50
Maudsley's Body and Mind. 1 vol., 12mo.....	" 1 00
Maudsley on Responsibility in Mental Disease.....	" 1 50
Meyer's Electricity. 1 vol., 8vo.....	" 4 50
Niemeyer's Practical Medicine. 2 vols., 8vo.....	Cloth, \$9 00; Sheep, 11 00
Neftel on Galvano-Therapeutics. 1 vol., 12mo.....	Cloth, 1 50
Nightingale's Notes on Nursing. 1 vol., 12mo.....	" 75
Neumann on Skin Diseases. 1 vol., 8vo.....	" 4 00
New York Medical Journal.....	\$4 00 per annum. Specimen copies, 35
Paget's Clinical Lectures and Essays. 1 vol., 8vo.....	Cloth, 5 00
Peaslee on Ovarian Tumors. 1 vol., 8vo.....	" 5 00
Pereira's Materia Medica and Therapeutics. 1 vol., 8vo.....	Cloth, \$7 00; Sheep, 8 00
Richardson's Diseases of Modern Life. 1 vol., 12mo.....	Cloth, 2 00
Sayre's Club-Foot. 1 vol., 12mo.....	" 1 00
Sayre's Orthopedic Surgery. With the Operations incident to Deformities. With numerous Illustrations.....	Cloth, \$5 00; Sheep, 6 00
Schroeder on Obstetrics. 1 vol., 8vo.....	Cloth, 3 50
Steiner's Compendium of Children's Diseases.....	" 3 50
Stroud's Physical Cause of the Death of Christ. 1 vol., 12mo.....	" 2 00
Swett on Diseases of the Chest. 1 vol., 8vo.....	" 3 50
Simpson's (Sir Jas. Y.) Complete Works. Vol. I. Obstetrics and Gynecology. 8vo. Vol. II. Anesthesia, Hospitalism, etc. 8vo. Vol. III. The Diseases of Women.....	Per vol., Cloth, \$3 00; Sheep, 4 00
Tilt's Uterine Therapeutics. 1 vol., 8vo.....	Cloth, 3 50
Van Buren on Diseases of the Rectum. 1 vol., 12mo.....	" 1 50
Van Buren & Keyes's Genito-Urinary Diseases, with Syphilis. Cloth, \$5; Sheep, 6 00	
Vogel's Diseases of Children. 1 vol., 8vo.....	Cloth, \$4 50; Sheep, 5 50
Wells on Diseases of the Ovaries. 1 vol., 8vo.....	Cloth, 5 00
Wagner's Chemical Technology. 1 vol., 8vo.....	" 5 00
Walton's Mineral Springs of the United States and Canada. With Analyses and Notes on the Prominent Spas of Europe.....	" 2 00

* * * Any of these works will be mailed, post-free, to any part of the United States, on receipt of the price.

A large and carefully-selected stock of Medical Works, American and Foreign, constantly on hand. Descriptive Catalogue forwarded on application.

Physicians desiring to have their names inserted in our Medical Directory of the United States and Canada, will please send them in full, with addresses. No charge.

D. APPLETON & CO., Publishers, 549 & 551 Broadway, New York.

REMARKS
ON THE
HISTORY AND TREATMENT OF TWO CASES
OF
FACE-PRESENTATION.

BY
EDWARD L. PARTRIDGE, M. D.
NEW YORK.

[REPRINTED FROM THE NEW YORK MEDICAL JOURNAL, MARCH, 1877.]



NEW YORK:
D. APPLETON AND COMPANY,
549 & 551 BROADWAY.
1877.

REMARKS ON HISTORY AND TREATMENT OF TWO CASES OF FACE-PRESENTA- TION.

IN the following records of two cases of face-presentation, no points of extraordinary interest are to be found; yet, in the details of these histories, several phenomena may engage attention: and the consideration of some expedients adopted in the treatment, together with their results, may be of service as testimony in favor of a method sometimes overlooked.

CASE I.—Caroline R., aged twenty-seven years, single, was admitted to the lying-in department of the New York Infant Asylum, in January, 1876. She gave a history of good health previous to and during pregnancy. This pregnancy, which was her first, dated, as she supposed, from April 20th, at which time, according to her statement, her last menstruation occurred.

Upon admission her condition was excellent, the only symptom which occasioned annoyance being very great œdema of the lower extremities. Frequent examinations of her urine failed always to show the presence of albumen.

The anasarca which, as we have said, was extreme, continued to be present until four days previous to labor, when one morning she found that *none* existed, nor did it return *at all* subsequently.

At 5 A. M., February 24th, the membranes ruptured, no pain from uterine contractions having been experienced. At

noon I visited the patient, and, on vaginal examination, found an os which would not admit the finger. Through the vaginal uterine wall the cephalic extremity of the child could be distinguished. Thus far uterine contractions had been slight and infrequent. At 6 P. M., two fingers could be introduced into the os, and the presentation and position were determined to be face—the chin posterior and to the mother's right side, brow anterior and to the left.

At 8.30 P. M., Dr. Nicoll was present with me, and vaginal exploration revealed the os nearly dilated; presentation and position as before. Labor-pains were short, occurring at long intervals, and gave the patient no annoyance.

Chloroform was administered; my right hand passed into the vagina, and by conjoined manipulation the child's head was flexed on its body, and a left occipito-anterior position thereby established. The manipulation required the introduction of the fingers only into the uterus. The palms were passed over the occiput, and, by slight downward traction, the change in the presentation was easily effected. The left hand assisted in the manoeuvre by external, upward pressure, lifting, to some extent, the head out of the pelvis.

During the next three hours there was no improvement in the pains, the patient obtaining considerable rest and sleep. No advance was made, the head not even engaging in the pelvic brim. During this time the presentation and position showed no disposition to alter. Between the hours of one and six, A. M., the patient was not under observation. As she could obtain rest and sleep, I had retired to bed, and, as the pains did not increase in severity, I was not summoned until the latter hour.

At this time a *face* presentation existed, with the position originally described. The uterine contractions had not improved.

At 8 A. M., Drs. Burrall and Nicoll being present, chloroform was administered, and the operation of inducing flexion of the child's head was again successfully performed. The forceps was immediately applied, and the head, in the left occipito-anterior position, brought well down in the pelvis. The instrument was then removed, and, as good uterine

action occurred, the labor terminated naturally in about twenty minutes. Convalescence was normal in every respect. The child, which weighed eight pounds and a quarter, had temporary facial paralysis on one side, one blade of the forceps having made pressure in front of the ear.

CASE II.—Sabrina S., aged fifteen years, single, was confined at the Infant Asylum, on September 12, 1876. The last menstruation of this patient occurred December 2d to 8th, the pregnancy being her first. During the last two months of utero-gestation she had several attacks of intermittent fever. Labor-pains commenced on the evening of September 10th, immediately after a severe chill which was followed by fever and sweating. On the 12th inst. she had another paroxysm of intermittent fever. The first stage of labor was much prolonged, without any apparent cause other than the malarial manifestations. When the os had reached the size of a quarter of a dollar, the presentation and position were found to be face, with the brow anterior and to the mother's left side, the chin being situated to the right, posteriorly.

At 5.30 p. m., of the 12th inst., in the presence of Drs. Burrall and Nicoll, the patient having been anæsthetized, I succeeded in converting, with my hand, the face-presentation into one of the first position of the vertex. The manipulation was the same as that adopted in the case just recorded. The membranes ruptured when the hand was passed into the vagina. The case was now normal with respect to the presentation and position. Excellent labor-pains followed, and the head descended to the pelvic outlet. At this time the mother was at the height of her fever, her pulse being from 130 to 140. The fœtal heart varied between 170 and 180 beats in the minute. The escape of the head from the bony pelvis was opposed by an abrupt projection forward of the coccyx at the sacro-coccygeal articulation. No progress was made for some time, during which—the patient being anæsthetized—attempts were made to overcome the deformity by the use of all the strength that could be brought to bear with the fingers. The forceps was finally applied, and three-quarters of an hour was occupied in delivery by this instrument. The child was still-born and weighed eight pounds. Exami-

nations made immediately after labor, and again three weeks later, revealed the fact that the deformity was not relieved by the pressure of the child's head during its extraction. No history could be obtained from the patient relative to any injury sustained in that region at any time previous to, or after, the occurrence of pregnancy. The free use of bisulphate of quinine prevented any recurrence of the malarial manifestations, and puerperal convalescence did not present any but normal symptoms.

In a review of these histories, we find in the first case a few facts apparently relative to the *time* at which the presentation of the face originally occurred, and to the *factors* influencing the presentation. Four days previous to the labor of the patient first mentioned, there was complete and permanent disappearance of an œdema of the lower extremities which previously was extreme. I think that the relief of this symptom was effected at this time by a transformation of a vertex presentation into one of the face. It is probable that the irregularities of the facial contour permitted free circulation through the veins conveying blood from the lower extremities, these veins having been previously obstructed by the pressure of the firm, even, rounded surface of the cranium. Authorities generally believe that a face-presentation occurs late in pregnancy, or during the changes immediately preceding, or occurring after, the commencement of uterine contractions. Judging from the facts in this case, it would appear reasonable to suppose that the change was effected four days previous to labor.

In the history of the second case, we find nothing to indicate the *time* of the change in presentation from vertex to face.

Regarding the mechanism by which a vertex presentation is converted into one of the face, we do not find any very great disparity in the views of different authors. According to the prevailing opinion the elements which, in the majority of cases, favor extension of the head and descent of the face, are uterine obliquity, a dolicho-cephalous form of the cranium, and a hitching of the occiput upon the brim of the pelvis. In the cases under consideration, the peculiar form of the child's

head was present. The occiput projected somewhat more than is usual, and consequently the posterior arm of the cranial lever was lengthened to some extent. In both cases there was slight *right* lateral obliquity. The occiputs of both children were, however, directed toward the mother's *left* side, and we must, therefore, eliminate lateral obliquity from the causes of the changes in these cases; because, in order to influence the presentation, the inclination of the uterus should have been toward the mother's *left* side. In the first case, it would appear as if the muscles governing the movements of the child's head acquired an unnatural action—during the time that the head had first been extended—which aided in the production and maintenance of the unnatural position of the child's head, because we found a reappearance of the face-presentation after it had been altered to one of the vertex. It will be observed from the history that, previous to the recurrence of the face-presentation, there had been no appreciable descent of the head, and consequently very little, if any, hitching of the occiput upon surrounding structures.

Another point illustrated in the second case was the influence of the malarial manifestations upon the duration of labor, and, more particularly, upon the length of the first stage. This influence I have observed as the only apparent cause of prolonged labors of other patients, in whom malarial poisoning existed.

3. We find, in the second case, a rapidity of the child's pulse proportionate to the frequency of that of the mother. When the mother's pulse was 140 in the minute, the fetal heart ranged between 170 and 180. The same observation has been made in other cases in hospital and private practice.

4. We may call attention to the condition of the coccyx, present in our second patient—quite unusual when we consider her youth. No inconsiderable force was brought to bear upon the unnatural conformation without removing the deformity. From the absence of traumatism, we must infer that the condition was the result of disease—ossification at the sacro-coccygeal articulation being highly improbable at the age of fifteen years.

Finally, we come to a brief consideration of the treatment resorted to in these cases, chiefly regarding its feasibility and propriety. Judging from the success attending the adoption of the expedient on these three occasions, and reasoning *a priori*, it would appear as if no great difficulty would be encountered in efforts to induce flexion of an extended foetal head, in many cases, where we find certain conditions favoring the procedure. The conditions of the maternal and foetal parts *especially* favorable to the operation we would enumerate as follows: An os nearly or quite dilated; a face not engaged in, or, at least, capable of being readily lifted from, the pelvic brim; an unruptured bag of waters. In the majority of labors a stage is reached when there are present these conditions. A capacious vagina is certainly desirable, but in both of our cases we dealt with primiparæ, and, in the case in which we were successful in two attempts, there was absence of the liquor amnii. The use of chloroform for the purpose of relaxing the structures of the parturient canal, and of quieting the movements of the patient—and in order to obviate pain attending the introduction of the hand into the vagina—is of primary importance. The manipulation requires the presence of the fingers only, in the uterus, and does not involve any laceration of the cervix. If the membranes are unruptured until the hand is in the vagina, it would appear preferable then to rupture them, thus guarding against any over-distention of the uterus; and the presence of the wrist at the vaginal outlet would prevent the escape of much amniotic fluid. Passing the palms of the fingers over the occipital bone, and pressing them firmly against it, traction downward should be made. In our endeavors, not more than a few moments elapsed before we felt the head commence its flexion, and then complete flexion immediately followed. The other hand was found to be of great service, aiding by external manipulation. Having succeeded in effecting the alteration in presentation, it would be wise to watch the case closely, until the head becomes well engaged in the pelvis, in order to perceive any tendency to a return to the original presentation; and if the tendency appeared and uterine contractions

were inefficient, the forceps might very properly be employed, *simply* for the purpose of engaging the head.

It would seem as if the cases we have recorded presented the usual features of face-cases. Both women were at full time, and the children of more than the average size.

The lack of success attending the operation recommended by Baudelocque, which resembles this method of treatment in some respects, has, I think, led to some indifference on the part of many authorities toward all treatment of a similar nature. Then, too, the great danger of bringing about brow-presentation, when efforts to induce flexion are made after the head has descended into the pelvis, has had its influence tending against all measures in any way like it. Baudelocque advised an attempt to alter a presentation of the face to that of the vertex as soon as two fingers could be introduced into the os. Such an attempt must be attended with great difficulty, and by much unnecessary, and perhaps dangerous, stretching and laceration of the cervix. Moreover, we would be somewhat prone to meet with a return of the face-presentation—if a change had been accomplished—because the factors originally causing the presentation of the face would still be present in full force. If flexion were secured by his operation, some time would elapse before the completion of the first stage of labor and the engagement of the head in the pelvis. During this time, if the dolicho-cephalous form of cranium existed in the child, and there was uterine obliquity, a return to the face-presentation would be quite possible.

The question which remains to be asked is, which is preferable, leaving to Nature a labor in which we have face-presentation, or employing a method of treatment such as that adopted in the cases recorded here?

Playfair expresses the views of most obstetricians regarding the prognosis in face-cases, when he says: "As regards the mother, in the great majority of cases the prognosis is favorable, although the labor is apt to be prolonged, and she is, therefore, more exposed to the risks attending tedious delivery. As regards the child, the prognosis is much more unfavorable than in vertex-presentations." Statistics, as far as they have been obtained, demonstrate that, in cases where the

face descends with the chin posterior, no rotation taking place, death of an average-sized child almost invariably occurs. Fortunately, in most cases, Nature effects a rotation of the chin anteriorly; but even in this event, which is the most favorable for a face-case, we find that one out of ten children perishes.

If we are successful in that variety of treatment employed in our cases, we convert a complicated labor, attended by many dangers, into one perfectly natural with respect to the presentation. If successful, we obviate the necessity of all the tedious and uncertain endeavors recommended to assist in rotation of the chin forward; and, in all probability, we do away with the use of the forceps, with version, and perhaps with craniotomy. It must be remembered, also, that we can never predetermine whether or not a chin, which enters the pelvis posteriorly, will rotate anteriorly during descent; and, if we leave the case to Nature, and then find that no rotation takes place, we have lost the opportunity favorable to the performance of the operation to rectify the presentation. The only dangers which could fairly be attributed to the method which we advocate are those arising from the introduction of a part of the hand into the uterus, and from causing pain, and possibly some shock, to a delicate nervous system by the presence of the hand in an undilated vagina. We preclude the possibility of the second danger by the employment of an anæsthetic, while, at the present day, the first is not believed to be a serious one. In fact, the patient is exposed to but little more risk from this source, than from a thorough examination of a presenting part through a slightly-dilated os. As a possible source of danger, I do not mention the establishment of a brow-presentation, because I do not think it exists. When a head, presenting by the face, *has descended* into the pelvis, the adoption of the method advised by Clark and Hodge—i. e., upward pressure on the malar bones—certainly appears to be attended by that source of danger. Our manipulation is performed when the head is above the brim of the pelvis and freely movable. The surrounding structures, which may scarcely be in apposition with the head, offer no resistance to the movement of flexion, which, when once commenced, can hardly fail of completion.

If we should fail in our efforts, we have not further complicated our case, the face still remaining as the presenting part.

From the difficulty experienced in the delivery of the head in the second case recorded, there is but little doubt that, had the child descended with the face presenting, we should have been compelled to perform craniotomy before the completion of delivery.

THE POPULAR SCIENCE MONTHLY.

CONDUCTED BY

E. L. YOUMANS.

This periodical was started (in 1872) to promote the diffusion of valuable scientific knowledge, in a readable and attractive form, among all classes of the community, and has thus far met a want supplied by no other magazine in the United States.

Nine volumes have now appeared, which are filled with instructive and interesting articles and abstracts of articles, original, selected, translated, and illustrated, from the pens of the leading scientific men of different countries. Accounts of important scientific discoveries, the application of science to the practical arts, and the latest views put forth concerning natural phenomena, have been given by *savants* of the highest authority. Prominent attention has been also devoted to those various sciences which help to a better understanding of the nature of man, to the bearings of science upon the questions of society and government, to scientific education, and to the conflicts which spring from the progressive nature of scientific knowledge.

THE POPULAR SCIENCE MONTHLY has long since ceased to be an experiment. It has passed into a circulation far beyond the most sanguine hopes at first entertained, and the cordial and intelligent approval which it has everywhere met, shows that its close and instructive discussions have been well appreciated by the reading portion of the American people. It has not been its policy to make boastful promises of great things to be done in the future, but rather to appeal to what it has already accomplished as giving it a claim upon popular patronage. But no pains will be spared to improve it and make it still more worthy of liberal support, and still more a necessity to the cultivated classes of the country.

The following quotations illustrate the way it has been habitually spoken of by the press:

"That there is a place for THE POPULAR SCIENCE MONTHLY, no one can doubt who has watched the steady increase of interest in scientific investigation manifested in this country, not only by a select class, but by the entire community."—*New York Times*.

"We think it is not too much to say that this is the best first number of any magazine ever published in America."—*New York World*.

"A journal which promises to be of eminent value to the cause of popular education in this country."—*New York Tribune*.

"It is, beyond comparison, the best attempt at journalism of the kind ever made in this country."—*Home Journal*.

"It is just what is wanted by the curious and progressive mind of this country, and ought to be widely circulated."—*New York Evening Post*.

"It is the first successful attempt in this country to popularize science in the pages of a monthly."—*N. Y. School Journal*.

"THE MONTHLY has more than fulfilled all the promises which the publishers made in the prospectus of publication."—*Niagara Falls Gazette*.

"This is a highly-auspicious beginning of a useful and much-needed enterprise in the way of publication, for which the public owe a special debt of obligation to Messrs. D. Appleton & Co."—*Boston Gazette*.

"This new magazine, in our estimation, has more merit than the whole brood which have preceded it."—*Oswego Press*.

"In our opinion, the right idea has been happily hit in the plan of this new monthly."—*Buffalo Courier*.

"This is one of the very best periodicals of its kind published in the world. Its corps of contributors comprise many of the ablest minds known to science and literature. It is doing a great and noble work in popularizing science, promoting the growth of reason, and leveling the battlements of old superstitions reared in the childhood of our race before it was capable of reasoning."—*The American Medical Journal, St. Louis, Mo.*

"This magazine is worth its weight in gold, for its service in educating the people."—*The American Journal of Education, St. Louis, Mo.*

THE POPULAR SCIENCE MONTHLY is published in a large octavo, handsomely printed on clear type, and, when the subjects admit, fully illustrated. Each number contains 128 pages.

Terms: \$5 per Annum, or Fifty Cents per Number.

POSTAGE FREE TO ALL SUBSCRIBERS IN THE UNITED STATES.

A new volume of the POPULAR SCIENCE begins with the numbers for May and November each year. Subscriptions may commence from any date. Back numbers supplied.

Now Ready, Vols. I., II., III., IV., V., VI., VII., VIII., and IX., of *The Popular Science Monthly*, embracing the Numbers from 1 to 54 (May, 1872, to October, 1876). 9 vols., 8vo. Cloth, \$3.50 per vol. Half Morocco, \$6.50 per vol.

For Sale, Binding Cases for Vols. I., II., III., IV., V., VI., VII., VIII., and IX., of *The Popular Science Monthly*. These covers are prepared expressly for binding the volumes of THE POPULAR SCIENCE MONTHLY as they appear, and will be sent to Subscribers on receipt of price. Any binder can attach the covers at a trifling expense. Price, 50 cents each.

AGENTS WANTED.

ADDRESS

D. APPLETON & CO., Publishers,

549 & 551 Broadway, New York.

APPLETONS' AMERICAN CYCLOPÆDIA.

NEW REVISED EDITION.

Entirely rewritten by the ablest writers on every subject. Printed from new type, and illustrated with Several Thousand Engravings and Maps.

The work originally published under the title of THE NEW AMERICAN CYCLOPEDIA WAS completed in 1863, since which time the wide circulation which it has attained in all parts of the United States, and the signal developments which have taken place in every branch of science, literature, and art, have induced the editors and publishers to submit it to an exact and thorough revision, and to issue a new edition entitled THE AMERICAN CYCLOPÆDIA.

Within the last ten years the progress of discovery in every department of knowledge has made a new work of reference an imperative want.

The movement of political affairs has kept pace with the discoveries of science, and their fruitful application to the industrial and useful arts and the convenience and refinement of social life. Great wars and consequent revolutions have occurred, involving national changes of peculiar moment. The civil war of our own country, which was at its height when the last volume of the old work appeared, has happily been ended, and a new course of commercial and industrial activity has been commenced.

Large accessions to our geographical knowledge have been made by the indefatigable explorers of Africa.

The great political revolutions of the last decade, with the natural result of the lapse of time, have brought into public view a multitude of new men, whose names are in every one's mouth, and of whose lives every one is curious to know the particulars. Great battles have been fought, and important sieges maintained, of which the details are as yet preserved only in the newspapers, or in the transient publications of the day, but which ought now to take their place in permanent and authentic history.

In preparing the present edition for the press, it has accordingly been the aim of the editors to bring down the information to the latest possible dates, and to furnish an accurate account of the most recent discoveries in science, of every fresh production in literature, and the newest inventions in the practical arts, as well as to give a succinct and original record of the progress of political and historical events.

The work has been begun after long and careful preliminary labor, and with the most ample resources for carrying it on to a successful termination.

None of the original stereotype plates have been used, but every page has been printed on new type, forming in fact a new Cyclopædia, with the same plan and compass as its predecessor, but with a far greater pecuniary expenditure, and with such improvements in its composition as have been suggested by longer experience and enlarged knowledge.

The illustrations, which are introduced for the first time in the present edition, have been added not for the sake of pictorial effect, but to give greater lucidity and force to the explanations in the text. They embrace all branches of science and of natural history, and depict the most famous and remarkable features of scenery, architecture, and art, as well as the various processes of mechanics and manufactures. Although intended for instruction rather than embellishment, no pains have been spared to insure their artistic excellence; the cost of their execution is enormous, and it is believed that they will find a welcome reception as an admirable feature of the Cyclopædia, and worthy of its high character.

This work is sold to subscribers only, payable on delivery of each volume. It is now completed in sixteen large octavo volumes, each containing over 800 pages, fully illustrated with several thousand Wood Engravings, and with numerous colored Lithographic Maps.

PRICE AND STYLE OF BINDING.

<i>In extra cloth, per vol.</i>	\$5.00	<i>In half russia, extra gilt, per vol.</i>	£1.00
<i>In library leather, per vol.</i>	6.00	<i>In full morocco antique, gilt edges, per vol.</i>	10.00
<i>In half turkey morocco, per vol.</i>	7.00	<i>In full russia, per vol.</i>	10.00

* * * Specimen pages of the AMERICAN CYCLOPEDIA, showing type, illustrations, etc., will be sent gratis, on application.

D. APPLETON & CO., PUBLISHERS,

549 & 551 Broadway, New York.