

Peter Cooper.

The departure of Peter Cooper was the peaceful close of a memorable life. If ever the contemplation of death can be not merely without terror, but even without pain, it is in such a case as this, where, surrounded by the loving circle of children to the third and fourth generations, and by hosts of warm personal friends, loaded with well earned honors, and cheered with the enthusiastic affection of the civilized world, a man who has done great things for his kind goes in the ripeness of age to his rest and reward.

Peter Cooper had long outlived his proper contemporaries; and this generation, which knew him best as a benefactor, had never known him as a bold inventor and enterprising pioneer in great business adventures—still less as an industrious mechanic, practicing a patient perseverance and a frugal economy which seem nowadays to have gone somewhat out of fashion. It is hard to realize that his life covers nearly the whole history of the United States. Born in the middle of Washington's first presidential term, when the population of the country was about 4,000,000 souls, he lived to see it the most powerful of Christian nations, containing more than 53,000,000 inhabitants, triumphant over internal rebellion, fearless of foreign foes, and filled from one ocean to the other with appliances of science and monuments of human skill not dreamed of in his boyhood. Except the stationary steam engine, which had just begun to be generally used when he was born, Peter Cooper witnessed the inception and growth of all the great material improvements which make our modern life what it is. Many of them, notably the railway and the telegraph, he essentially assisted in the days of their feeble beginnings; and his characteristic attitude toward them all was one of encouragement and hope. He was an optimist of the most wholesome type, not believing that things were well enough as they are, but full of a sublime faith that things can be bettered, and ready to welcome with sanguine support all attempts to better them.

In this, as in many other particulars, the history of Peter Cooper is distinctively American. No other country, in the early years of this century, could have given free scope to the versatile ingenuity and unconquerable perseverance with which he turned from one trade to another, until he planted his foot upon the road to fortune. Under other institutions, he would have remained a hatter, like his father, or become a brewer or a coach maker, after once beginning in either of those trades.

But in this free atmosphere he was able to follow each path that offered itself, to master each business that he undertook, and to leave it for another that promised larger scope. He failed in nothing; each step was an advance; and when at last he took up the manufacture of glue and isinglass, the principal occupation of his life, he pursued it with an unwearied and unconquerable ardor as truly American as his versatility.

Another peculiar feature of his career was his conception of the uses and duties attached to wealth. He felt bound by the very fact of his prosperity not only to relieve the unfortunate, but also to organize agencies which should permanently benefit the city, the growth of which had been the basis of his own success, and the working classes, by whose co-operation all great fortunes are built up. The absence of governmental endowments for charity and for learning has always rendered the claims of these objects upon individual generosity stronger in this country than elsewhere. Public spirit has done among us more than official action could have accomplished; and this spirit, fostered by our political system, has gathered strength through the inspiration of great examples, among which that of Peter Cooper is one of the most conspicuous, and has been perhaps the most fruitful.

Notable as have been the results directly flowing from his beneficence, they are insignificant compared with the indirect consequences of the noble contagion which his enthusiasm communicated to other men. It is impossible to measure the effect of his example, showing as it does both sides; the joy and potency of a wise benevolence, and the immediate reward which it commands in the affection and praise of all mankind.

We had intended, in commencing this article, to emphasize particularly Mr. Cooper's earlier achievements, and their relation to the progress of the arts. But goodness is more than greatness; and we feel that the universal feeling is right when it mourns to-day the departure, and rejoices in the history, not of the ingenious inventor, the successful manufacturer, or the enterprising capitalist, but of the lover of men, whose wisest schemes, like his most trivial acts and words, uttered his inmost disposition. The Cooper Union, planted by his hand, and tended with daily assiduity by him to the last, bears in every part the indelible marks, not merely of the man's wisdom or philanthropy, but of the man's self. As his benign face has been for years a most frequent and familiar object within its walls, so his gentle soul pervades and inhabits it forever.—*R. W. Raymond, Eng. and Min. Jour.*

ALPI, the highest mountain in the Philippines, is 10,824 feet high. Only recently has it been ascended by explorers.

A HAIRY CHILD.

The picture is that of a girl, six years of age, covered from head to foot with soft, silky hair. Upon first sight little Kra-o, as the child is named, would appear to be the "missing link" between the ape and man, but a closer examination of this peculiar being will prove that this diagnosis is faulty in all respects. We have simply an excellent type of hypertrichoprosis (superabundance of hair), cases of which have been known in this and previous centuries. Kra-o, who is being exhibited in London at present, is quite an intelligent child, and has acquired enough knowledge of the English language within a few months to be able to make herself understood; and this is an ample proof that, although her outward appearance is that of an animal, she has a bright mind and considerable intelligence. A correspondent of the *Institution Ethnologique*, Mr. H. Kaulitz-Jarlow, writes as follows to the editor of the *Illustrirte Zeitung*:

"Kra-o is about six years old; she is of the same size as other children of her age, but of a finer build; thick, jet black hair covers her head and reaches down to the backbone, and forms a perfect mane on the shoulders; the eyebrows are wide, glossy, and silky, and the eyes are of a deep black with open pupils, and the iris is missing entirely, as in the gorilla; the resemblance to the face of the latter is very great and astonishing; the nose is flat, and has wide nostrils inclined diagonally toward the cheek bones; the cheeks hang down and are baggy, and in them Kra-o stores her food and carries it about with her in the same manner as her cousins of the ape tribe.

Her head, like the human type more than any other part of her body, and the intelligent eyes, the agreeably rounded mouth with the full lips, which can smile very pleasantly

**HAIRY CHILD FROM BORNEO.**

when Kra-o plays and talks, do not at all correspond with the ape-like body of the child. Kra-o is of a brownish-yellow color, and the hair extends from the crown of her head to the soles of her feet. She is generally very jolly, loves to play, and is more thankful than most children if persons take the trouble to amuse her. If she is molested and teased, her wild nature shows itself; she throws herself on the ground, screams, strikes the person, and finds great pleasure in tearing out some of her superabundance of hair."

We must call the attention of our readers to the fact that the above is only an extract from a letter from Mr. Kaulitz-Jarlow, who seems to be very enthusiastic in the matter of classifying Kra-o as one of the apes. Kra-o was found in the presence of her parents in the Loas district, in Borneo. Her father died while traveling to Bangkok, and her mother is at present at the court of the King of Loas. Mr. Karl Bock brought the child to England, and it is now exhibited by Mr. Jarini.

Bakuol, a Safe Illuminating Oil from Baku Petroleum.

The introduction of the oils of the Caucasus into commerce naturally attracts much attention in Europe, but more especially in Russia. That their composition is not precisely like that of American petroleum was ascertained a few years ago, and is still further illustrated by the following report of Professor Mendelejeff, president of the Chemical Society of St. Petersburg, upon the preparation of a safe illuminating oil, not flashing below 50° C. (122° Fah.), from Baku naphtha.

Mendelejeff says that by mixing ordinary Baku kerosene,

which has a gravity of 0.82 or 0.83 and burns between 20° to 30° C. (68° to 86° Fah.), with another product of Baku petroleum called "intermediate oil," which has a gravity of 0.86 to 0.88 and does not take fire below 100° C. (212° Fah.), a safe oil can be prepared, using them in the proportions in which they occur naturally, namely, 2 or 3 parts of the former to 1 or 2 parts of the latter. This mixture has a specific gravity of 0.84 or 0.85, and fills all the requirements of an illuminating material free from danger, as it takes fire only between 50° and 70° C. (122° and 158° Fah.). Since such a mixture burns well in the ordinary kerosene lamp, it can be recommended as an excellent illuminant.

The crude petroleum from the Caucasus yields from 20 to 30 per cent of the lighter oil above described (called over there kerosene) and 10 to 20 per cent of the "intermediate" or heavier oil. By the utilization of the described mixture a much larger portion of the petroleum product becomes available for illumination, which would result in reducing its cost.

Mendelejeff proposes the name of "Bakuol" for his new mixture.

[Mixing the oils of high and low flashing points from American petroleum has a very different effect, namely, that of reducing the flashing point of the mixture to a dangerously low point.—Ed.]

The Aim of Exercise.

It should be understood by the public, as it is known to the profession, that the aim of exercise is not solely to work the organism which is thrown into activity, though that is one, and a very important, part of the object in view, because as the living body works it feeds, and as it feeds it is replenished; but there is another purpose in exercise, and that is to call into action and stimulate the *faculty of recuperation*. Those who believe in the existence of a special system, or series, of trophic nerves will not object to this designation of the recuperative function as a separate "faculty," and those who believe nutrition to be effected in and by the ordinary innervation will recognize the sense in which we employ the term in italics. It is through defect or deficiency in the vigor of this faculty that unaccustomed feats of strength, whether of mind or muscle, are found to be exhausting.

The task is performed, but the underlying faculty of restorative energy, or power of recuperative nutrition, located in the particular part exceptionally exercised, is not in a condition to respond to the unusual call made upon it. When a man goes into training, or, which is practically the same thing, when he habituates himself to the performance of a special class of work, he so develops this recuperative power or function that the repair or replenishing necessary to restore the integrity and replace the strength of the tissue "used up" in the exercise is instantly performed.

The difference between being accustomed to exercise and able to work "without feeling it," and being barely able to accomplish a special task, and having it "taken out" of one by the exploit, whether mental or physical, is the difference between possessing the power of rapid repair by nutrition, and not having that power in working order—so that some time must elapse before recovery takes place, and during the interval there will be "fatigue" and more or less exhaustion.

The practical value of a recognition of this commonplace fact in physiology will be found in the guidance it affords as to the best and most direct way of developing the power or faculty of recuperation by exercise. Many persons make the mistake of doing too much. Exercise with a view to recuperation should never so much exceed the capacity of the recuperative faculty as to prostrate the nervous energy. The work done ought not to produce any great sense of fatigue. If "exhaustion" be experienced, the exercise has been excessive in amount.

The best plan to pursue is to begin with a very moderate amount of work, continued during a brief period, and to make the length of the interval between the cessation of exercise and the recovery of a feeling of "freshness" the guide as to the increase of exercise. We do not mean that false sense of revival which is sometimes derived from the recourse to stimulants, but genuine recovery after a brief period of rest and the use of plain nutritious food. If this very simple rule were carried into practice by those who desire "to grow strong," there would be less disappointment, and a generally better result, than often attends the endeavor to profit by exercise unintelligently employed.—*Lancet.*

Chlorine as Plant Food.

A German exchange says that chlorine is a very important nutrient for plants. To all appearances the chloride of potassium exceeds the nitrate in nutritive value as long as the quantity does not exceed a definite limit. When there is too much of the chloride, the quantity of chlorophyll decreases, the plants ripen sooner, but the oxalic acid increases in quantity. In fact, it acts just like hydrochloric acid would.