

Scientific American.

MUNN & CO., Editors and Proprietors.

PUBLISHED WEEKLY AT

NO. 37 PARK ROW, NEW YORK.

O. D. MUNN.

A. E. BEACH.

TERMS.

One copy, one year, postage included.....\$3 20
One copy, six months, postage included..... 1 60

Club Rates.

Ten copies, one year, each \$2 70, postage included.....\$27 00
Over ten copies, same rate each, postage included..... 2 70

By the new law, postage is payable in advance by the publishers, and the subscriber then receives the paper free of charge.

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VOLUME XXXIV., No. 9. [NEW SERIES.] Thirty-first Year.

NEW YORK, SATURDAY, FEBRUARY 26, 1876.

Contents.

(Illustrated articles are marked with an asterisk.)

Table listing various articles such as Air drafts in mining shafts, Leather-dressing machine, Lining out connecting rods, etc., with corresponding page numbers.

THE SCIENTIFIC AMERICAN SUPPLEMENT.

No. 9.

For the Week ending February 26, 1876.

TABLE OF CONTENTS.

Table listing sections of the supplement including THE INTERNATIONAL EXHIBITION OF 1876, MECHANICS AND ENGINEERING, PROCEEDINGS OF SOCIETIES, ELECTRICITY, LIGHT, HEAT, ETC., TECHNOLOGY, LESSONS IN MECHANICAL DRAWING, ARCHITECTURE, NATURAL HISTORY, CHEMISTRY, METALLURGY, ETC., ASTRONOMY, MISCELLANEOUS.

COMBINED RATES.

The Scientific American and Scientific American Supplement will be sent together for one year, postage free to subscribers, on receipt of \$7.00.

MUNN & CO., PUBLISHERS,

37 Park Row, New York.

Single copies of any desired number of the Supplement sent to any address on receipt of 10 cents.

WHAT THE COMING MAN MAY BE.

Clever writers have frequently amused themselves and their readers by forecasting the future, and prognosticating the condition of humanity centuries hence. They have materialized, so to speak, the dreams of to-day, and pictured human life as it might be were those dreams fulfilled.

A writer of sufficient knowledge and liveliness of imagination might plan a more marvelous and, it is hardly too much to say, more probable Utopia from the standpoint of psychological rather than material development, picturing a time when the average man will be intellectually as superior to us as we are superior to the less developed man of five thousand years ago.

Measure the intellectual gulf between the Australian savage, barely able to count his fingers and having no numerals above two, and a Newton or a La Place, or even the average man of to-day: then suppose the whole race advanced an equal interval. Imagine a race of men so intellectual that the average man would be a Michael Angelo! The basis for such an estimate of the powers of the coming man is found, strange to say, in certain idiots.

Idiocy is commonly marked by the non-development of the physical powers, but sometimes by the non-development of all but one, in which cases a single faculty appears to receive the whole of the force evolved, and to develop enormously at the expense of all the rest. Thus we may account for the marvelous power in one direction shown by idiotic prodigies like Blind Tom, whose psychical power is wholly musical. The idiot painter known as Cat Raphael illustrates the same perversion of force in another direction. He drew and painted cats and kittens of every sort, shape, and shade, in every possible position and condition, and painted them wonderfully well, yet could do nothing else.

Imagine an organism capable of sending an equal amount of force to each and all the faculties: a type of humanity in which the average man should have the memory of some idiots, the swift and certain calculation of others, the linguistic, musical, constructive, and artistic faculties of others. Such a type of man is by no means impossible, by no means improbable. There have been prodigies in memory, in calculation, in music, in inventive power, who were up to the average in all other directions.

A MAN'S WORK.

How best to utilize human labor, and at the same time to produce the least fatigue, is one of those interesting problems in industrial mechanics which every inventor of machines based on man power as a motor is called upon to

consider, and to which every employer of men for the sake of their brute muscular strength is obliged to give some attention. It is a common error to believe that, in order to produce a given amount of work, a man always expends a given amount of power, and to recognize this is the first step toward a correct estimation of a man's muscular capability. Appropriate rests are absolute necessities to the human machine, and it is by intermittent, not continuous, effort that its best work is produced.

The best application a man can make of his power is through his legs, for the muscles of those members are not only absolutely but relatively stronger than those of the arms. In other words, after work, the fatigue produced in both sets of muscles being equal, the leg muscles will have performed more useful labor than those of the arms.

As to the absolute power of a man, expressed in pounds to be lifted or in similar terms, exact data are obviously impossible, even for an average individual. An interesting series of experiments were conducted on this subject some time ago in France, and these, we believe, give a fair approximation. The heaviest load a man of strength can carry for a short distance is placed at 319 pounds. All a man can carry habitually—as a soldier his knapsack—walking on level ground is 132 pounds, and this is an extreme load, we should judge.

THE OIL RESOURCES OF AFRICA.

It is hardly possible to study the progress which has been made during late years, in the art of utilization of previously wasted substances, without being impressed with the anomalous course which the world has followed, relative to the vast natural products of Africa. To the economist the question may well suggest itself whether an energy and skill akin to that which scientific men have expended in discovering sundry of these utilizing processes, if devoted to devising means for developing the resources of the great and almost unknown continent, would not have yielded results far more valuable to mankind in the increase of raw material placed at its disposal.

The difficulties in the way of the development above indicated are the unhealthiness of the country, and the monopolies controlled by slave dealers. One of the latter buys the entire right to a large and valuable region by paying the King of Dahomey \$10,000 a year. The iniquity of this monopoly is increased, says a recent writer, by the king binding all he traders to give palm oil to this trader at a price fixed by this king himself, without reference to market prices.