NEW CABLE CODE.

AN OFFICIAL VOCABULARY OF PRECONCERTED LANGUAGE TO BE ISSUED.

At the International Telegraph Conference, which was held at Buda-Pesth in July, it was decided to issue a new official vocabulary of preconcerted language. This was opposed by American firms who operate private codes, as the value of these codes would be destroyed. The conference adopted an amendment to its constitution, in order to provide for these codes, and it has just been issued from headquarters at Berne, Switzerland. Preconcerted language is defined as composed of words having intrinsic sense, but not combined into intelligible phrases. Words in this language cannot contain over ten characters, according to the Morse alphabet. They must be taken from one or more of these languages: German, English, Spanish, French, Dutch, Italian, Portuguese and Latin. Proper names cannot be used except with their meaning in plain language. The original sending office can demand the production of the sender's code to see that the rules have been observed.

From a date to be fixed by a future conference all the words used in private telegrams written in preconcerted language will be extracted from the official vocabulary duly enlarged and compiled by the International Bureau of Telegraph Administrations.

The new vocabulary will include all words of private codes, provided they are true unmutilated words, taken from the eight languages given above and comply with the above rules. The international bureau desires all compilers of codes and all persons desiring words from certain codes reproduced in the official vocabulary, to forward them before the end of this year to the International Bureau of Telegraph Administrations, Berne, Switzerland.

STEEL vs. WOODEN CARS.

From The Railway Review.

In the Kingdom of Prussia, where about nine-tenths of all the railroads have been bought, and are now owned by the Government, together with extensive car shops, a good opportunity was offered to settle the long discussed question as to the relative merits of wood and steel cars for railways. The Royal Niederschleisische Maerkische Railroad, between Berlin and Breslau, is the trial field for any novelty to be introduced in the construction of the Government's railroad or rolling stock, and here on the Rechte Oder Ufer Railway the most practical and best built cars, entirely of iron and steel, have been in use for a number of years. Minute and strict data have been kept of these metal cars, and also of the wooden cars, constructed and equipped at the same time, having the same capacity and being employed for the same service. After a period of about five years the data thus obtained proved that the wooden cars are less damaged than metal ones. Moreover, the damages to the metal cars were not only more serious, but required in every instance the sending of the cars to the shops for repairs, while the damaged wooden cars could, usually, be repaired at the place of accident, thus effecting a large saving in the maintenance item. The wooden cars also are the cheapest, and in view of the above facts it appears future construction will be limited to them.

CALCUTTA'S DOCKS.

From the Railway Review.

Among the most notable systems of dock construction achieved by modern engineering science, Calcutta may be said to present a conspicuous example. The entrance to these docks is through a channel 80 feet wide, and a lock 60 feet wide, terminating in a basin measuring 600 by 680 feet. Two entrances, 60 and 80 feet wide, lead from this basin to the dock proper, which is 2,600 feet long, 60 feet wide for the greater part of its length, and covers thirty-four and a half acres, two dry-docks also leading off from the basin, one of them 520 feet long and the other 350 feet. While the river is low these waterways are supplied with fresh water from the neighborhood, and elaborate provision is made to remove the mud from this water before it is pumped into the basin. The docks are equipped with fifty-six movable hydraulic cranes, of which fifty are constructed to move as much as one and three-fourths tons, while the remainder can handle weights of five tons, all of them overhanging the quay twenty-nine feet, and operated by water under pressure, as are also the lock gates, capstans and swing bridges about the docks. The water is under a pressure of 700 pounds and is furnished by two pairs of hydraulic engines, each of 230-horse power.

IRON V. WOOD SLEEPERS.

In the current issue of the "Bulletin of the International Railway Congress," Mr. W. Hohenegger describes his experiences with two experimental sections of line laid with longitudinal sleepers of wrought iron. These sleepers were of channel section, and were made in lengths of 31 ft. 10 in., their weight being 52 lbs. per yard. The rails weighed 54 lbs. per yard, and the gauge of the line was maintained by simple angle connections at about every ten feet. The final cost of the track as laid was £1 7s. 4d. per yard, as against £1 0s. 8d. for ordinary track with wooden sleepers. One of the sections laid has just been taken up after 20 years' use, and is to be replaced with a similar, but heavier track. During the whole period there has not been a single rail or sleeper fracture on either of the experimental sections aid, and the life of the rails has been from five lo eight years more than on the adjoining sections laid in the ordinary manner. In addition to these two experimental sections, other portions of the line have also been laid with longitudinal sleepers, steel being used in the latest designs, in which the weight of the sleepers is 60 lbs. per yard. The cost of this track is £1 4s. 4d. per yard, and in all some 43½ miles of it have been laid. The rails and the sleepers break joint, this being found to give a better track than coincident joints. The experience gained is said to have been of a satisfactory nature.

THE LARGEST BOOK.

From Kuhlow's German Trade Review.

According to Professor Max Muller, of Oxford, the largest book in the world is the wonderful Kuth Daw. It consists of 729 parts, each consisting of white marble plates covered with inscriptions, each plate built over with a temple of brick. It is found near the old priest city of Mandalay in Burmah; in fact, the temple city consists of more than 700 pagodas, and makes up this enormous book, the religious Kodex of the Buddhists. From the three parts of which it is composed, called in a figurative sense "baskets," the whole is often termed "the three baskets" (tripitaka). It constitutes a library larger than the Bible and the Koran together. The Old Testament contains, we believe, 59,493 words and 2,728,100 letters. The tripitaka contains 275,250 stanzas and 8,808,000 syllables. It is written in Pali, and is not a particularly ancient production. It was erected in 1857 by the command of Mindomin, the second of the last kings of Burmah. It is now proposed to photograph these 729 plates. As a contrast to this bibliological giant we may mention the "Konversationslexikon," published in Berlin and prepared by Daniel Sanders. The volume occupies a space of 6 cubic centimetres (0,3666 cubic inches) and contains 175,000 words. A special microscope is prepared for reading it.

NOT COAL, BUT ANTHRAXOLITE.

From the London Advertiser.

Some months ago the report was sent out that anthracite coal had been discovered in Algoma. The report was denied by the Bureau of Mining. Now the statement that coal has really been discovered in northwestern Ontario is revived. Dr. A. R. Gordon, a lecturer at Toronto University, has just returned from Algoma. He says the coal is in general use in the village of Chelmsford, where it is not only utilized in furnaces, but for household purposes as well. Dr. Gordon says that not only it is a good sample of coal, but the deposit is very large. He saw the men at work on the vein, and saw them use the coal they took out of the ground to heat their drills. The deposit is located near Sudbury, and only six miles from the Canadian Pacific. Despite these statements, the Mining Bureau, which has fully investigated the alleged deposits, asserts that the mineral which has been discovered in Balfour township is not anthracite coal. It is known as anthraxolite, and is mixed with a large proportion of quartz. It has not, it is maintained, any commercial value as a fuel.

TO CLEAN OUT OIL WELLS.

From the Petrolea Topic.

The new electric method of increasing the production of old or wornout wells is said to be gaining in favor on the other side. The apparatus is simply a powerful electric heater about three feet long, and cartridge shaped, which is lowered to the oil rock, and when the current is turned on it melts the paraffine and other obstructions in the rock crevices, allowing the oil free access to the pump. Its use is said to make some oil wells better than when first drilled. There are lots of wells here it might advantageously be used on, if it is as good as report says.

EATING WHEN FATIGUED.

"Every one should know that to eat when tired is to place upon the digestive organs a burden which they are wholly unable to carry," says *Modern Medicine*. "When the body is in a state of fatigue, the digestive organs are unable to perform their natural functions; the glands of the stomach will not form gastric juice; the saliva is deficient in quantity; and the whole digestive apparatus is incapable of doing efficient work. When exhausted, one should rest before eating. If a faint or 'all-gone' sensation is experienced, relief may be obtained by drinking a glass of hot water or diluted fruit juice of some sort."

—Describing the birthplace and the early days among the New Hampshire hills, of Adoniram Judson Gordon, an admirable specimen of a Baptist minister, recently deceased, his son writes the following eloquent parallel between Scotchmen and New Englanders: "Fifteen miles distant was born that imperial man with the mighty brow, under which glowed two coals for eyes—Daniel Webster. Fifty miles away, as the crow flies, stands the little school-house on one of whose benches the name of Horace Greeley, cut with a school-boy's knife, is still to be seen. At Hillsboro bridge, below, was born Charles A. Dana. . . . Of the others—the Miners, the Brewsters, the Wentworths, the Pillsburys, the Colbys, it is not necessary to speak. They have been worthy children of the New Hampshire soil strong, shrewd, hard-hitting, much-enduring men, very like the Scotch, also bred in rugged hills, under a Calvinist regime, and vitalizing the British Empire, world over, as these New Englanders have vitalized the Great Republic."

—A peculiarly business-like not to say chemical use to make of a poetical idea is to be found in a recent issue of the *Lancet*, which journal comments thus upon the proposal to draw up a code of ethics of the British Medical Association: "Professional ethics cannot be put into written form. They are essentially 'unwritten.' To write them would be to spoil them. They are like the aroma of some flowers—an aroma which when concentrated becomes offensive."

—When 350 watts make one horse-power, when copper wire sells for five cents a ton, when six inches make one foot, when two feet, make one yard, when one watt equals a kilowatt—then 53 cents will make one dollar, and the people of the United States will stand as the largest aggregation of dishonest repudiators in the history of the world.—*New York Electrical Review*.

—Little Clarence (who has a bulging brow)—"Pa, couldn't Cain write his name?" Mr. Callipers—"Now, what possesses you to ask such a foolish question as that?" Little Clarence—"It doesn't seem foolish to me, pa; I have just been reading in the newspaper where it mentioned the mark of Cain."

—A new lead for deep-sea sounding carries a cartridge, which explodes on touching the bottom. A submerged microphone receives the sound, and the depth is estimated from the time occupied by the lead in sinking.

—The Baldwin Locomotive Works of Philadelphia has just completed its 115,000th locomotive.