

Paragrams.

Surinham, in Dutch Guiana, has the smallest range of temperature of any place in the world. In summer the average is 78 degrees, and in winter 77½ degrees.

The total immigrants to Canada during the financial year just ended numbered 175,000—the largest on record, and 20 per cent. in excess of the previous year's total.

A first-class battleship, which costs over a million to build and fit out, takes upon an average three years to construct, and nearly as long to pull to pieces, after being thirteen years or more in active service.

Metal does not rust in Lake Titicaca, South America. A chain, an anchor, or any article of iron, if thrown in this lake and allowed to remain for weeks or months, is as bright when taken up as when it came fresh from the foundry.

The empirics are still curing sea sickness, and the world is still poorly when it ventures on the wave. Those who collect these remedies will be interested to hear of another invention for the purpose. It is a steel cap, heated by electricity, to be applied to the head, and is the invention of a gentleman who bears the appropriate name of Herr Kappmeier, of Alsklost. The idea is to correct the anæmia of the brain which is assumed to be the cause of sea sickness.

Recent figures give the June U.S. output of anthracite and coke pig iron at 1,936,000 tons, which is at the rate of 23,232,000 tons a year, and is the highest record for any one month's production. In 1903, the year of the previous maximum output, the anthracite and coke pig iron production for the first three months was 4,453,873 tons, while for the same three months this year it has been 5,309,500 tons. The output for the first three months of 1904 was only 67 per cent. of the current figure.

It has been shown by recent experiments that the power of germination with plant seeds is not destroyed, but only suspended, by extreme cold. It is impossible to produce any more intense cold than that obtained from liquid air. Seeds of barley, cucumbers, peas, sunflower, and some other plants have been kept in liquid air 110 hours. When taken out and carefully and slowly thawed for fifty hours, and planted, they have sprouted as well as if they had never been frozen. Life had merely been suspended suddenly, locked up within its material investment before there could be a possibility of the least entrance of decomposition.

The Wellington Harbour Board has accepted the tender of Palmer and Co., of Wellington (representing Rice and Co., of Leeds), at £525, for its new hydraulic accumulator. The amount includes duty. The other tenders which the board considered were from Richardson and Blair (Glenfield and Kennedy, Ltd., Kilmarnock), £542 17s. 6d.; Riley and Holmes (Armstrong, Whitworth, Newcastle-on-Tyne), £585; Greenshields and Co. (Fullerton, Hodgart, and Barclay, Ltd., Paisley), £635. In each of these cases the tenderers included the duty. Informal tenders were sent by A. and T. Burt, Ltd., and the Sydney Hydraulic Engineering Company.

Two miles from Kamakura, and about 20 from Yokohama, in Japan, on a terrace near the temple, sits the most gigantic idol in the world. It is the brazen image of a deity, and dates from the reign of the Emperor Shomu, who died A.D. 748. The dimensions of the idol are colossal. His height, from the base of the lotus flower upon which he sits, to the top of his head, is 63½ ft. The face is 16 ft. in length and 9½ ft. wide, the eyes are 3 ft. 9 in. from corner to corner, the eyebrows 5½ ft., and the ears 8½ ft. The chest is 20 ft. in depth, and the middle finger is exactly 5 ft. long. The 56 leaves of the lotus throne are each 10 ft. long and 6 ft. wide.

An interesting subject is the speed of different animals, and recent statistics have been given by an expert who has been making experiments. The Russian wolf-hound's speed, it seems, is 75 ft. a second, while the gazelle attains 80 ft. a second. Aided by its wings, the ostrich is the fastest runner,

sometimes making 98 ft. a second, an enormous speed. In measured flights, the Virginia rammer has a record of 7500 yds. a minute, and the European swallow has exceeded 8000 yds. The slowest creatures are snails and certain beetles—a healthy snail's speed being 5½ in. an hour. For fractions of a second certain very small creatures have almost incredible speeds, a mouse of the African desert jumping 10 ft. at the rate of 800 ft. a second, while the common flea jumps with an initial velocity of 850 ft., or 10 miles a minute

The new rail motor car introduced by the London and North-Western Railway to provide an accelerated service on the lines between Walsall and Lichfield, and Walsall and Rugby, is pronounced successful in every way. The vehicle consists of a single long car with seating capacity for about four dozen passengers. The vehicle consists of a single long car with seating for about four dozen passengers. The car is propelled by steam power, and the engine is capable of being regulated from either end, so that the driver has always a clear and uninterrupted view of the signals. The car is divided into two large compartments, one being for smokers, and there is also accommodation for luggage.

Satisfactory progress has been made with the construction of the immense buildings in Hagley Park, Christchurch, which are to accommodate exhibits and otherwise provide for the innumerable demands made on an International Exhibition. The whole of the ground floor in the main building is about completed, and will be ready for exhibits early in October.

The Machinery Hall is to be finished well within the contract time, if the Railway Department does not delay it in running its line of rails into the large bay set apart for the purpose on the northern side. Two bays of the Machinery Hall have been covered with roofing iron, and a start has been made in placing Stuccolin on the front of the building.

The splendid revenue received by the State of Victoria for the year ending 30th June, 1906, is the highest reached in its history, making allowance for the share now retained by the Commonwealth. In 1888-9, when the land boom was at its height, the Victorian revenue reached the figure of £8,731,255, and the revenue of the past year, £7,797,626—added to the sum now retained by the Commonwealth to carry out its services, £1,196,439—makes a total of £8,994,065, or £162,810 more than that of the boom year. The lowest revenue since 1888-9 was in 1895-6, when it fell to £6,485,682, and it has since gradually risen, until reaching the magnificent result of the year just closed.

How many persons (asks a London paper) would not hail with the delight the discovery of a safe, pleasant and easily procurable remedy for indigestion? Such a remedy is recommended in the correspondence columns of the *Lancet* by no less an authority than Dr. Francis T. Bond. "The indigestion must be a very hopeless one," says Dr. Bond, "which will not yield to a diet of a small cup of warm milk to which a teaspoonful of rum has been added, followed by a plain biscuit or two and some very mild cheese, paradoxical as this combination may seem." The marriage of rum and milk, according to the doctor, like all well assorted unions, brings out the good qualities of both parties to the alliance, and, taken wisely and not too well, he is of opinion that they form a happy combination of stimulant and nutriment much superior to many widely advertised pick-me-ups.

The discovery has been made that the railway tunnel, which has been constructed under the river between New York and Brooklyn, is for 1200 ft. too small to allow of the passage of the trains. The cost of the work has been over £2,000,000. The trouble is attributed partly to cracked steel plates put into the work at an early stage, and partly to inefficient supervision. The prime reason for the trouble undoubtedly is that the top of the steel tube has been crushed in by the pressure of earth and water, causing the sides to bulge out, and in places making the tunnel just one foot too low to accommodate a train. It is not disputed that the most serious blunders have been committed, and it is hardly likely now that the tunnel will be fit for service until 1909. Some experts, indeed, say that a large portion of the bore must be rebuilt.

There is probably no branch of organised manufacture which demands such precision of workmanship as is required in the production of the best photographic lenses. The bricklayer and the tailor (says *Photography*) are proud of working within an eighth of an inch, the cabinetworker

of working to a hundredth, the machinist deals in thousandths, the watchmaker in ten thousandths but the photographic lens maker works in hundred thousandths of an inch every day until he forgets the remarkable character of this performance, for it becomes instinctive. And while this accuracy is necessary in the production of the best lenses, and any failure to realise it results in a defective instrument, it is likewise true that in the designing of lenses, also in the preparation of the materials, experimental investigation and mathematical reasoning are called for to an extent no less remarkable and rare in manufacturing industries.

Enquiries made of the N.Z. Department of Labour go to show that at present the man who is practically sure of a job is the experienced navvy who is not afraid of what is colloquially known as "graft." Such a one, it appears, is in request; municipal and public works generally (particularly in Wellington), are providing a wide field of labour for the man with the pick and shovel, and the prospect is that the present state of things is likely to continue. Incidentally it is gathered that the electrical engineer has become somewhat of a drug on the market. Apparently he has gathered in the Old Country that New Zealand is busily engaged in illuminating and propelling itself by means of electricity, and he has come out here to offer his services in the process. Now he finds that he is not in such demand as he thought, and he is looking eagerly for that which he thought would be thrust upon him. It may be added that the man who desires clerical or light employment need not apply.

The success of rail-motor services on many hitherto unremunerative railway branch lines has brought to the front the possibility of re-opening abandoned lines to be worked on the new method. The Great Western Railway have been asked to establish a motor service on the Whimsey branch, between Mitcheldean Road station and Cinderford. The Whimsey line was constructed some years ago by a company, which, finding they had not enough capital to work it successfully, sold it to the Great Western Railway in expectation that they would work it, but they decided to keep it closed. The Great Western Railway have replied to the petitioners that they are afraid that the possibility of getting a reasonable return for such service is not such as would justify the heavy capital expense that would be involved, and as the population served only numbers about 9,000 people, the caution of the railway in the matter appears perfectly justifiable.

Some interesting statements have been made by a medical man in Hong Kong in respect to Chinese surgery. Alluding to a distinction between internal and external medicine, the external medicine being what we call surgery, he referred to the fact that several hundred years before the birth of Christ there was an eminent Chinese surgeon who believed in extensive operations and amputations, but he was almost alone, as no one else ever attempted even to cut off a finger. Describing the chief aims of the native doctor in surgery at the present time, he said that they are skilled in the use of the needle and counter irritation, the latter including what is ordinarily termed massage, and burning of the flesh. He had himself seen children treated by this burning process for diseases of the stomach. Commenting on the deplorable ignorance of anatomy among the Chinese, he affirmed that they have an idea that the heart and the stomach are connected, and that the epigastrium is the seat of thought. They also imagine that the gall bladder is the seat of boldness, and that all schemes originate from it.

The Central Council of the Employers' Federations of Australia has discovered a peculiar situation in regard to the registration of workers' trade marks—that is, the union label under the Trade Marks Act. The Minister for Customs has received a letter from the council, in which it is stated that a serious situation has arisen. The council intended opposing the registration of any such label on constitutional grounds, and sought legal advice on the matter. The council had learned that this proposed objection had been provided against, applications for such registration being kept secret, instead of being gazetted in same way as applications for ordinary trade marks have to be. In the case of application for registration of a regular trade mark it has to be announced in the *Gazette*, and any opponent of an applicant may oppose the granting of it. Under the new Act, all that an applicant for a trade union mark need do is to file an application, which is examined and entered upon a special register without gazetting. The council's adviser, writing on the subject to the Minister, asks—"If a trade mark can be registered by stealth may it not be tainted with suspicion?"