

THE  
**Palace Journal**  
People's Palace, Mile End Road.

VOL. XI.—No. 270.

FRIDAY, JANUARY 13, 1893.

ONE PENNY.

PEOPLE'S PALACE  
**Club, Class and General  
Gossip.**

COMING EVENTS.

FRIDAY, January 13th.—Winter Garden, open from 6 to 10 p.m. Admission, 1d.  
SATURDAY, 14th.—In the Queen's Hall at 3 o'clock, Professor Clarence's Conjuror Entertainment. Admission, 1d. At 8 p.m., Concert by Mr. Vernon Lee's Opera Part Singers. Admission, 3d.  
SUNDAY, 15th.—At 4 p.m. and 8.30 p.m., Sacred Concert and Organ Recitals. Admission Free.  
MONDAY, 16th.—Winter Garden, open from 6 to 10 p.m. In the Queen's Hall, at 8 p.m., Lecture, "The Starry Realms," by the Rev. Newton Vanstone. Admission, 1d. Reserved Seats, 3d.  
TUESDAY, 17th.—Winter Garden, open from 6 to 10 p.m. Admission, 1d.  
WEDNESDAY, 18th.—At 8 p.m., in Queen's Hall, Entertainment by the O I O Minstrels. Admission, 2d. Winter Garden open from 6 to 10 p.m.  
THURSDAY, 19th.—Winter Garden, open from 6 to 10 p.m. Admission, 1d.

THE Library will be open each day during the week, from 8 a.m. to 5 p.m., and from 6 p.m. to 10 p.m. Newspapers may be seen from 8 a.m. On Sunday, open from 3 to 10 p.m. Admission free.

THE attendances on Sunday at the Sacred Concert, Organ Recital, and Library were 2,423.

THE Social Dance of the People's Palace Orchestral Society took place in the music room on Saturday evening last. Mr. C. Auguste Victor led the band very efficiently, Mr. Brown (flute) kindly assisted, and Miss Ramsey accompanied. As many of the dancers were away skating the gathering was not so large as expected. About fifty attended and a most enjoyable evening was spent, there being plenty room for dancing. Mr. Stock acted as M.C. We desire to thank Mr. Osborn for his kindness in having everything in such good order for our comfort.

PUBLIC NOTICE.—We have just commenced a new term, and shall be pleased to admit musicians as members. We have vacancies for Violin, Cello, and Bass, and also Oboes, Bassoons, and Brass.

WM. STOCK, Hon. Sec.  
C. AUGUSTE VICTOR, Librarian.  
H. VERYARD,

THE vocalist for Sunday next, at 4 o'clock, will be Madame Sarina de Hensler.

OUR readers are reminded that the Journal will be sent post free to any part of the United Kingdom for 1s. 6d. per quarter, or 6s. per annum.

It is with much pleasure we are able to announce that arrangements for Evening Classes in Navigation have been completed. These classes will be held on Monday, Wednesday and Friday evenings, from 7.30 to 10 p.m., and will commence on Monday, 16th January. We have been fortunate in securing the services of Mr. W. H. Rosser, who will conduct both the classes. Mr. Rosser's name is alone sufficient guarantee of the excellence and thoroughness of the teaching, and the course of studies has been arranged in such a way as to give students a sound knowledge of Navigation, and not to prepare them for examination only. This should be of great use, as shipowners feel the disadvantage of a mere examination test, and it is hoped they will give preference to those who have a more thorough knowledge of Navigation.

MR. HENRY SIM, late cook and steward in the Merchant Service, has been engaged to give practical lessons in Nautical Cookery. These classes have been started by the wish of Shipowners, and will commence on the 16th January. Every effort will be made to conduct an examination for certificates on such lines as is desired by the Shipping Federation, and it is trusted that that body will acknowledge our certificates. There can be no doubt that ere long it will be absolutely necessary for all cooks on merchant vessels to have some guarantee of their ability.

A Class in Reading, Writing and Arithmetic for men whose education has been neglected will meet for the first time on Tuesday next. Mr. Thomas will be the instructor, and only those over the age of 18 will be admitted. It is hoped that all who need it will avail themselves of this class.

PEOPLE'S PALACE OLD BOYS F.C.—The above club was down to meet the Eton Mission (Res.) on Saturday last, but the match was abandoned owing to the inclement weather. This was very unfortunate, as the Old Boys were bent upon wiping out the defeat sustained by them earlier in the season. The Granville will be our opponents next Saturday (January 14th), at Victoria

Park (Ground No 5). The team selected to do duty for the Old Boys is as follows:—H. Baines (goal), H. Phillips (Capt.), T. Howell (backs), A. Oughton, E. Langdon, R. Toyne (half-backs), E. Burton, H. Skinner (right wing), H. Newman (centre), A. Clements, W. Bissett (left wing, forwards), Dress at 327, Old Ford Road. Kick-off 3 o'clock sharp. Referee, Mr. J. Finnis.

ANOTHER Social Evening is being arranged for the members of the Girls' Swimming Club, on Tuesday, 31st inst. Tickets may be obtained of Miss M. J. Osborn, the Secretary of the Club.

A MEETING was held in the Club-room on Wednesday, December 28th—to be continued each week for the present—of the young women students of the Dressmaking Classes, who have undertaken to work up warm clothing for the poor of the East-end. Several donations of money for the purchase of flannel, &c., and also many parcels of old clothing, have been received by Mrs. Scrivener, who is conducting the movement and who will, I know, be glad to receive assistance from any of the young women students of the Palace.

ANY lads belonging to the Junior section, who are not in work should apply to Mr. Osborn, who has been applied to by a City manufacturer for some youths, about 16.

A CHALLENGE for a friendly competition in gymnastics has been received from Mr. Mitchell of the Regent Street Polytechnic. He proposes that one evening be devoted to a competition between girls and another to one between men. It is needless to say that we have had the greatest pleasure in accepting the challenge, and shall look forward to the pleasant evenings when we meet our friends from the Regent Street Institution.

WHEN a man measures his neighbour, he uses the best man he knows for the standard; when he measures himself, he uses the worst.

PHOTOGRAPHS have been taken of the lips of a speaker, so that on arranging them a deaf mute, able to read from the motion of the lips, can understand them.

SOME people never find out that an opportunity is an opportunity until it has turned the next corner.

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The Palace Journal.

January 13, 1893.

**Cleanings, Grave and Gay.**

THERE is nothing more tantalising to a man than to go home with something in his mind he wants to scold about, and find company there and be obliged to act agreeably.

A WATCH is usually composed of 98 pieces, and its manufacture embraces over 2,000 distinct operations. Some of its screws are so small as to be imperceptible to the unaided eye, and the slit in the heads of these screws is 2-100ths of an inch in width.

A RECENT article in an English review on the national growth shows some striking facts in regard to the resources of the English race at home. In the past thirty-five years Great Britain has lost by emigration nearly 7,000,000 of population—an enormous drain, and one which probably has never been equalled in the history of civilized nations. In spite of this tremendous leakage of population, there has been a steady increase, and during the last ten years the population has run up from 32,800,000 to 36,700,000; the population has increased at the rate of twelve per cent., wealth at the rate of twenty-two per cent., commerce at the rate of sixty-seven per cent., and instruction at the rate of sixty-eight per cent. The number of paupers has fallen from 48 per 1,000 to 27, a very striking and hopeful decrease, due probably in large measure to better methods of charitable work, both public and private; the consumption of alcohol has fallen from 2.33 gallons per inhabitant to 1.79. There are only two depressing facts among these very striking statistics: there is a marked decrease in the birth rate and a marked increase in the insanity list.

FOOTBALL, generally, is of very ancient origin, and mention is found of it as far back as the reign of Edward II. It was then played in a very rough and primitive fashion by large groups of men, the goals being often some miles apart. Shrove Tuesday appears to have been the great day for these games, and the games played at Chester, Corfe Castle, Scone, and Derby are historical. Many Acts were passed in the reigns of Edward III., Richard II., Henry IV., and Henry VIII., with a view to stamping out the sport; but these appear to have been quite ineffectual, and the game flourished generally in the sixteenth century. Several allusions to the game are to be found in Shakespeare. Tripping, hacking, and rough play of every description was then allowed, and the game got a very bad name—a character which it has not even yet quite shaken off. The modern Rugby Union game came in its present form from Rugby School, although even the laws there have been very considerably modified. The Rugby Union was started in 1871, and since its institution has done extremely good work in expunging the rules of the game which led to roughness and brute force, and changing it into what it now is—a really healthy and scientific pastime. The Football Association was started in 1863. This branch of the game takes its origin

almost entirely from the public Schools at Eton, Harrow, Westminster, Winchester, and Charterhouse. The scientific nature of the game has been largely elaborated of late years, and the play of the powerful professional teams of the north attracts enormous crowds, and awakens the most intense excitement and enthusiasm. In fact, football in the north of England and in Scotland may be said to be now the most popular game played.

AN unpublished letter from Dr. Livingstone will appear in *The Young Man* for February. It was addressed to his intimate friend, Dr. James Hamilton, and was brought to England by Stanley. To the same number Archdeacon Farrar will contribute "The Story of a Choice in Life: and what came of it"; and the Archdeacon of London will write on "The Ideal Theatre." Dr. Sinclair is by no means opposed to the stage, and considers that "something like an ideal level has been reached by the Lyceum, in the hands of my friend Mr. Irving."

MRS. JACOB BRIGHT has written an article on "The Laws which affect Women," for the February number of *The Young Woman*, which will also contain a paper on "The Young Woman in Society," by Miss Francis E. Willard, and the first of a series of articles on "How to Dress on £12 a year," by Miss Billington.

Don't look for the flaws as you go through life;  
And even when you find them  
It is wise and kind  
To be somewhat blind,  
And look for the virtue behind them.  
For the cloudiest night has a hint of light  
Somewhere in its shadows hiding:  
It is better by far  
To hunt for a star  
Than the spots on the sun abiding.  
The current of life runs ever away  
To the bosom of God's great ocean.  
Don't set your force  
'Gainst the river's course  
And think to alter its motion.  
Don't waste a curse on the universe—  
Remember, it lived before you.  
Don't butt at the storm  
With your puny form—  
But bend and let it go o'er you.  
The world will never adjust itself  
To suit your whims to the letter.  
Some things must go wrong  
Your whole life long.  
And the sooner you know it the better.  
It is folly to fight with the Infinite,  
And go under at last in the wrestle,  
The wiser man  
Shapes into God's plan  
As the water shapes into a vessel.

MORE newspapers are published in English than in any other language; indeed, half the newspapers of the world are brought out in English. Something like 8,000 newspapers appear in German, but this is only half the number that are issued in the mother tongue of this country.

CANADA is doing well both as a shipowner and a shipbuilder. At the present

time she has 1,218,000 tons of registered shipping, valued at seven and a half millions sterling. Canadian shipping tonnage takes the fifth, and almost the fourth, place among that of the nations of the world. It registers within 55,000 tons of the shipping registered in the whole German Empire, and exceeds the tonnage of either France, Italy, Russia, Spain, Austria, Australasia, Denmark, or Greece. It in fact exceeds the aggregate tonnage of the last four countries combined. The tonnage of vessels which entered and cleared at Canada last year was 7,645,000 tons, which, with the exception of Gibraltar and Malta, which are ports of call, and of Hong-Kong, was greater than that of any British possession excepting the British Isles.

Most people begin married life hoping and expecting that they will be happy in it. They fancy that marriage has a magic power of conferring happiness almost in spite of themselves, and are quite surprised when experience teaches them that domestic felicity, like everything else worth having, must be worked for. If no two people have it so much in their power to torment each other as husband and wife, it is their bounden duty to guard against this liability by cultivating the habit of domestic politeness. For this reason we like to see a young wife, or an old one either for that matter, going to the foot of the stairs or to the hall-door with her husband when he goes to his business in the morning, and welcoming him back in the evening. The love that never expresses itself in such outward courtesies is in danger of dying of inanition. And the young husband on his part should not leave home in a bad temper or so much engrossed in business that he cannot bid his wife an affectionate farewell. An unkind word at parting may make her sad all the day, for business and strange faces do not divert her thoughts as they do those of her husband. Too often the husband takes the loving little courtesies of his wife as a matter of course, and seems to think that they need not be returned. For himself he could scarcely do without the good-bye at his door which fortifies him for the business of the day. Let him appreciate these things before it is too late. Sweet were the words uttered at meeting and parting by husband and wife before marriage, and there is not the slightest reason why the wedding ceremony should put an end to courtship.

The mystic "R."—Observant people may wonder why physicians begin their prescriptions with the letter R. During the Middle Ages, when astrology was in fashion, a character very much like our R was the sign of Jupiter, the preserver of health. The physicians being then equally divided to the science of medicine and of astrology, invariably began their prescriptions with the following words: "In the name of Jupiter take the following doses in the order set down hereinafter." In the course of time this formula was abbreviated, until at present only the letter R remains to teach us that the medical art was once associated with the science of the stars.

**How Money is Coined.**

A somewhat sombre-looking structure is the building on Tower Hill where our coinage is manufactured. But, however unimposing may be the exterior of the Royal Mint, its interior arrangements are remarkable for their adequacy and completeness, and an inspection of them is full of interest.

You pass through the iron gateway and cross a broad court-yard, thus arriving at the office, where you are placed in charge of an attendant. His duty is to show and explain to you the process of coining, and to keep a strict eye upon you lest your innate sense of the beautiful should prompt you to surreptitiously possess yourself of one of the bright new yellow coins that are constantly being produced and thrown on one side by an automatic machine.

Nearly all the gold that is coined at the Mint is sent from the Bank of England in the form of bars, each of the value of £800. Large quantities of uncoined bullion are continually passing for commercial purposes between this and other countries, it being more convenient to transfer the gold in this form than in the shape of foreign coinage. The reserve fund of the Bank of England, too, to a great extent, consists of uncoined gold, which, when the Bank requires a fresh supply for circulation, is sent to be coined at the Mint. Private persons or bullion dealers may send their gold to the Mint; but, as before stated, nearly the whole of the coined gold originally comes from the Bank.

The first process that the metal has to undergo on arriving at the Mint is that of testing. A small piece is cut from each bar, and is handed to the assayer. The gold coinage of all civilized countries is of one standard quality, and if the gold is found by the assayer to be of this exact standard it is accepted for minting. It is first weighed with the utmost exactitude, and is then sent to the melting-house.

The last-mentioned department is one in which the visitor is sure to be deeply interested. The lurid glow of the furnace, reflected on the heavy machinery, and on the faces of the workmen, who are clad in leathern garments to protect them from possible injury by the molten metal, gives the place a peculiarly dramatic aspect.

Four or five thousand pounds' worth of gold at a time is placed in a thick plumbago crucible, and is lifted by an iron crane into the furnace. There it remains until it becomes of white heat, and then in a fiery mass it is lifted by the crane, which revolves till it deposits its glowing burden above certain moulds which are in readiness. By automatic action the seething fluid is then poured from the crucibles into the moulds.

When the metal has hardened it is removed from the moulds and is placed in water to cool. It is now in the form of bars 21in. long, 1½in. wide and 1in. thick, each bar representing £1,200. Before leaving the melting-room the gold is weighed, and it is then sent in to the great rolling-room.

In this department the gold is rolled by heavy machinery, worked by a powerful engine, into laths resembling in size those of an ordinary iron bedstead, and

about the thickness of the coin to be manufactured. These ribands of gold undergo a process of annealing in brick ovens, which has the effect of toughening the metal and making it less brittle, so as to be suitable for subsequent operations of a more exact nature.

The golden fillets are next taken into the "Drawing Room." It must not be inferred from the name of this apartment that it has been furnished in accordance with the requirements of modern luxury. It would, in fact, notwithstanding its title, be a singularly inappropriate place for a fashionable gathering. Engines are in motion, trucks of metal are being wheeled to and fro, and workmen are busy at the drawing machines. The laths of gold are being drawn between two highly-polished steel cylindrical rollers, with the object of making them of one exact thickness throughout.

This process is continued until the golden riband is of the proper thickness for coining. A workman comes with a hammer and a punch and knocks out a disc of gold the size of a sovereign, which is then weighed. If this specimen prove too heavy the riband is again drawn between the rollers, until a similar disc can be tested to be of the requisite weight.

When this happy consummation has been attained the laths of gold are forwarded to the cutting-room. Here the gold is handed to a dozen boys who are in charge of as many cutting presses. These machines are worked by steam-power, and are provided with punches to cut out discs of metal the exact size of a sovereign or half-sovereign, as the case may be. The duty of the boys is to place the golden laths in their proper position under the punches. The machinery is then set in motion, cutting the metal into circular pieces which drop into a box beneath.

The honeycombed pieces of riband are returned to the melting room to undergo the same process over again. The golden discs, which are now nearly ready to receive their impression and pass into currency, are next carefully weighed, and they then pass into the marking room. Here the prospective coins are subjected to a steam pressure which raises a plain rim or protecting edge, as it is called, around them. There are eight machines in this room. The pieces of gold are placed in a tube and drop one at a time into the proper position to receive the blow that raises the edge, after which they fall into a receptacle at the base of the machine.

The maturing coin, however, has further unpleasant experiences to undergo before being dignified with a queen's head and a dragon. At present it is no more imposing in appearance than an unpolished gold button. Not till it has passed through the ordeal of the annealing and blanching rooms will the embryo sovereign be in a fit state of brightness to face the coining presses and receive its impression.

In the annealing-room the future coins are placed, 3,000 at a time, in cast-iron pans, which are covered with moist clay. They are then placed in ovens, where they are subjected to an intense heat. Next they are taken to the blanching-room, where, having first indulged in a

cold bath, they are washed with a weak solution of sulphuric acid and water. The result of these operations is to prevent the coins from tarnishing, and to remove all impurities from their surface.

The next indignities to which they have to submit are, being placed in hot sawdust in a drying stove, and then being violently shaken up in a sieve. But however disagreeable this operation may be, its effect is very salutary, for now the all-but finished coins are glowing with a brightness calculated to excite the affectionate admiration of the visitor who has witnessed all their former trials.

They are now placed in glittering piles on wooden trays, resembling those used by butchers, and are sent to the coining-press room, where they are to receive the finishing stroke.

The coining-presses are eight in number, and are capable of turning out 120 coins a minute. They are worked by steam-power, and the pressure brought to bear in stamping the coins amounts to eight tons. The gold discs are placed in a long tube, from which, one by one, they fall into position between the upper and lower dies. The two dies are then by screw-action brought simultaneously in contact with the coin. At one stroke the coin receives its impression on both sides, as well as the milling on its edge. By automatic action the completed coin is then thrown into its receptacle, while another from the tube takes its place to be treated in a similar way.

Before leaving the Mint the coins are weighed by means of a very fascinating little automatic machine, the invention of Mr. Cotton, a former Governor of the Bank of England. The coins are placed in a long tube resembling that used for the coining press. From this tube they drop on a small steel plate which acts as a scale. If the coin be of proper weight a small hammer knocks it into a box prepared for its reception, but if too heavy or too light another hammer is set in motion and knocks it into a different receptacle.

This machine can weigh thirty-three coins a minute, and is in use at the Bank of England as well as at the Mint. Its precise action makes it very interesting to the spectator. As the sovereign falls on the scale one cannot restrain a feeling of curiosity as to which of the hammers will dispose of it, and whether it is destined to return to the fiery ordeal of the melting-room, or to go forth into circulation as one of the coins of the realm. The process of minting, however, is done with so much accuracy that, after leaving the coining presses, the coins are nearly always in a proper condition to go at once into circulation.

When a young man pawns his winter overcoat to buy a bouquet for a young lady, it is no sign that he is very much in love. He may be just an ordinary fool.

People who want to do good never have to stand about at the corners waiting for an opportunity.

**Science Notes.**

**THE INTERMINABLE DEPTHS OF SPACE.**

In his last lecture at the Royal Institution Sir Robert Ball said:—"A telegraphic message would go seven times round the earth in a second, and if a telegraphic message could be sent to the moon it would reach its destination in a little more than a second. It would take something like eight minutes to arrive at the sun; but how long did they think it would take to get to Alpha Centauri travelling thither at 180,000 miles a second? Seconds, minutes, hours, days, weeks, months would not be long enough; it would take not less than three years travelling all the time at that tremendous pace before it would reach its destination. If that was the case with respect to the nearest of the stars, what must be said of those which were farther off? There were stars so remote that if the news of the victory of Wellington at Waterloo had been flashed to them in 1815 on that celestial telegraph system it would not have reached them yet, even if the message had sped at the pace which he had indicated and had been travelling all the time. There were stars so remote that if when William the Conqueror landed here in 1066 the news of his conquest had been despatched to them, and if the signals flew over the wire at a pace which would carry them seven times round the earth in a single second of time, that news would not have reached them yet. Nay, more, if the glad tidings of that first Christmas in Bethlehem nineteen centuries ago had thus been disseminated through the Universe, there were yet stars of which astronomers could tell them, plunged into space in depths so appalling, that even the eighteen hundred and ninety-two years that had elapsed since that event would not have been long enough for the news to reach them, though it travelled at 180,000 miles in every second."

**A NOVELTY IN NAVIGABLE BALLOONING.**

About seven years ago Commandant Renard, director of the central establishment of military balloons at Chalais-Meudon, France, made a number of experiments with the dirigible balloon La France. Since then he has not been idle, but engaged in perfecting a propelling mechanism which will be tried at an early date. The new balloon, General Meusnier, is cigar-shaped, like its predecessor La France, and measures (says the *Times* correspondent) 70 metres from tip to tip, with a diameter of 13 metres, and a capacity of 3,400 cubic metres. The car, which is constructed of bamboo and steel, contains a cabin for the machinery and men. The motor employed is worked by means of gasoline and balloon gas, and develops 54-horse power during 8 to 10 hours. It is able to drive the balloon at a speed of 40 kilometres an hour, or 11 metres a second. The total weight of the machinery, with the carburator, the gasoline, and accessories, will not surpass 1,200 to 1,400 kilogrammes, or 30 kilogrammes per horse-power. Until now petroleum motors of large size have weighed 150 to 200 kilogrammes per horse-power; but M. Renard has been able to reduce the

figure by a new arrangement, which we are not at liberty to disclose. The screw-propeller is placed in front of the car and the rudder behind. The balloon has been entirely constructed at the Chalais works by engineering soldiers who are studying the art of ballooning. It is expected that the trial ascent will be made during fine weather in the early part of next year.

**SOME ELECTRIC WONDERS.**

Mr. J. W. Swan has been directing the attention of the members of the Midland Institute, Birmingham, to some striking facts relating to the applications of electro-metallurgy. The united production of all the electrolytic copper works in the world is estimated by him at between 30,000 and 40,000 tons of copper every year, or about a ton every quarter of an hour. It is only three years since this process began to be applied to the extraction of aluminium, and already the price of that valuable metal has been reduced thereby from half a guinea to two shillings a pound. When the lightness of aluminium is taken into account, this is little more than the cost of copper, bulk for bulk. The reduction of the cost of aluminium has led already to so great an extension of its use that now the consumption exceeds a ton a day. At present the greatest consumption of aluminium is in the manufacture of steel, but Mr. Swan considers it probable greater uses will be found for aluminium than any that have yet been discovered. Turning from processes that depend on the chemical effect of electricity to those which utilize the heating power of the electric current, Mr. Swan in his address rather startled his hearers by saying that he had seen that day electric blow-pipes capable of melting the stoutest iron so rapidly that to melt a way into the strongest of the so-called "fire and burglar-proof" safes in the world with one would be the work of only a few minutes, and would, moreover, be a perfectly easy and noiseless operation. It is comforting, however, to know that the 40-horse power engine required to back the simple-looking jet is too ponderous to allow of this new instrument being taken advantage of by the enterprising burglar. "The villainous centrebit," therefore, says Mr. Swan, is likely for some time longer "to grind on the wakeful ear in the hush of the moonless night."

**A CLIMBING FISH.**

It is not to be supposed that a fish is absolutely comfortable away from his own element, but it is nevertheless true that he sometimes sees fit to live on the land for a short period. Of all land-frequenting fish, the most famous is the climbing perch of India, which not only walks out of the water, but also mounts into trees by means of sharp spines situated near its head and tail. It has a peculiar breathing apparatus, which enables it to extract oxygen from the water, stored up within a small chamber near its gills, for use while on land.

**THE HEAT OF THE SUN.**

It is difficult to form any numerical statement of the actual temperature of the sun. The intensity of that tempera-

ture vastly transcends the greatest artificial heat, and any attempt to clothe such estimates in figures is necessarily very precarious. But assuming the greatest artificial temperature to be about 4,000° Fahr., we shall probably be well within the truth if we state the effective temperature of the sun to be about 18,000° Fahr. This is, indeed, vastly below many of the estimates which have been made. Secchi, for instance, has estimated the sun's temperature to be nearly one thousand times that here given. The copious outflow of heat from the sun corresponds with its enormous temperature. We can express the amount of heat in various ways, but it must be remembered that considerable uncertainty still attaches to such measurements. The old method of measuring heat by the quantity of ice melted may be used as an illustration. It is computed that a shell of ice 43½ ft. thick surrounding the whole sun would in one minute be melted by the sun's heat underneath. A somewhat more elegant illustration was given also by Sir John Herschel, who showed that if a cylindrical glacier forty-five miles in diameter were to be continually flowing into the sun with the velocity of light, the end of that glacier would be melted as quickly as it advanced. From each square foot in the surface of the sun emerges a quantity of heat as great as could be produced by the daily combustion of sixteen tons of coal. This is, indeed, an amount of heat which, properly transformed into work, would keep an engine of many hundreds of horse-power running from one year's end to the other. The heat radiated from a few acres on the sun would be adequate to drive all the steam-engines in the world. When we reflect on the vast intensity of the radiation from each square foot of the sun's surface, and when we combine with this the stupendous dimensions of the sun, imagination fails to realise how vast must be the actual expenditure of heat.

The Inventor King. This position, by common consent, is held by Thomas Alva Edison, of the United States, who was born at Alva, Ohio, in 1847, and the number of whose inventions is almost innumerable. He holds forty different patents to protect his stock telegraph system alone, and also forty different patents covering his automatic telegraph. Amongst his best-known inventions may be mentioned the automatic repeating telegraph, the stock printer, quadruplex telegraphy, the phonoplex, the electric light, the motograph, the improved tasineter, the mimeograph and the electric pen, the ore-milling process, the electric engine, the railway telegraph, the telephone, and the phonograph. The world may yet owe to him the solution of the problem of safe locomotion through the air.

THE atmosphere in the English Channel last Wednesday was so remarkably clear and rare that the smoke from the Calais mail steamer could be seen from the English coast almost as soon as she left Calais Harbour, a distance of about twenty-three miles. The vessel is not usually sighted until within half an hour of the coast.

# PROGRAMME OF CONCERT

ON  
Saturday, January 14th, 1893, Commencing at Eight o'clock,

BY  
MR. VERNON LEE'S OPERA PART-SINGERS.

VOCALISTS:

MISS HELEN ROZE. MISS ANNIE WILLIAMS.

MR. VERNON LEE. MR. TREFELYN DAVID.

MR. ARTHUR BECKWITH. MR. BARRY LINDON.

Pianist - - MISS FLORENCE PHILLIPS.

PIANOFORTE SOLO ... *Tochaikowsky.*

MISS FLORENCE PHILLIPS.

GLEE "Haste ye, soft gales" *Martin*

MR. VERNON LEE'S OPERA

PART-SINGERS.

MESSRS, VERNON LEE, TREFELYN DAVID

ARTHUR BECKWITH and BARRY LINDON.

Haste ye, soft gales, to my relief—  
Learn ev'ry sigh, each pain, each grief;  
Then wait them to my fair one's ear,  
Tell how I languish in despair,  
And if soft pity she deny,  
Tell her for her alone I die.

SONG ... "The Holy City" ... *Adams.*

MR. TREFELYN DAVID.

Last night I lay a—sleeping, there came a  
dream so fair,  
I stood in old Jerusalem beside the  
Temple there;  
I heard the children singing, and ever as  
they sang  
Methought the voice of angels from  
heaven in answer rang:  
Jerusalem! Jerusalem! lift up your gates  
and sing,  
Hosanna in the highest, Hosanna to your  
King.

And then methought my dream was  
changed, the street no longer rang,  
Hush'd were the glad Hosannas the little  
children sang:  
The sun grew dark with mystery, the  
morn was cold and chill,  
As the shadow of a cross arose upon a  
lonely hill.

Jerusalem! Jerusalem! Hark! now the  
angels sing,  
Hosanna in the highest, Hosanna to your  
King.

And once again the scene was changed,  
new earth there seemed to be  
I saw the Holy City beside the tideless  
sea.

The light of God was on its streets, the  
gates were open wide,  
And all who would might enter, and no  
one was denied.

No need of moon or stars by night, or  
sun to shine by day.

It was the New Jerusalem that would not  
pass away.

Jerusalem! Jerusalem! Sing, for the  
night is o'er,  
Hosanna in the highest, Hosanna ever-  
more.

SONG ... .. *Adams*

"What am I, love, without thee."

MISS ANNIE WILLIAMS.

What am I, love, without thee,  
O dearest heart of mine,  
A night without the moonlight,  
A goblet without wine;  
An ocean cave without a pearl,  
A ring without a gem,  
A king upon a phantom throne  
Without a diadem;  
A pilgrim wandering desolate  
Without a star to guide,  
A ship without a rudder,  
Upon a dark'ning tide;  
A bird that flies from cloud to cloud  
And find no place of rest.

What am I love without thee,  
O sweetest heart and best,  
What am I love without thee,  
O sweetest heart and best.

See what I am without thee,  
Then come to me come soon,  
I am the voiceless midnight,

And thou the song of noon,  
I am the wand'ring pilgrim,  
The helmless ship am I,  
The wood without the music,

The earth without its sky,  
And thou art sun, and moon and flower,  
The beacon and the star,  
To shine and guide my sightless steps,  
Where love and sweetness are.  
Then come in all thy splendour,  
O hear me and forgive,  
See what I am without thee,  
Look down and make me live.

PART-SONG Selection from "Maritana"  
(specially arranged).

MR. VERNON LEE'S OPERA PART-  
SINGERS

SONG ... .. *G. A. Hodson*

"Tell me, Mary, how to woo thee"

MR. VERNON LEE.

Tell me, Mary, how to woo thee,  
Teach my bosom to reveal  
All its sorrows, sweet, unto thee,  
All the love my heart can feel.

No, when joy first brighten'd o'er us  
'Twas not joy illum'd her ray;  
And when sorrow lies before us,  
'Twill not chase her smiles away.

Like the tree no winds can sever  
From the ivy round it cast!  
Thus the heart that lov'd thee ever,  
Loves thee Mary, to the last.

SONG ... .. *Angelo Mascheroni*

"For all Eternity"

MISS HELEN ROZE.

What is the secret spell around me  
stealing?  
The evening air is faint with magic power,  
And shadows fall upon my soul revealing,

The meaning of this mem'ry-laden hour.  
A year ago our paths in life were parted,  
A year ago we sever'd broken-hearted.  
Where art thou now, on earth my love,  
Or did thy spirit roar to realms above?

Tho' never more on earth, those eyes  
serene and holy,  
Thy face that shone in beauty never  
more I may see;

The music of thy voice is echoing  
still within me,  
Thou regnest in my heart, mine own,  
in life and death I love thee.

The air grows fainter, still the scene is  
fading,  
Thy hallowed presence in my inmost soul  
Alone is real by wond'rous power, o'er  
shading

All things beside, I feel its sweet control  
Filling my heart with confidence eternal,  
That I shall meet thee in a world supernal,  
Where thoughts are felt as I feel thine,  
In this blest hour and know thy thoughts  
are mine.

Tho' never more on earth, &c., &c.  
*S. A. Herbert.*

SONG ... .. *F. Sarjeant.*

"Blow, blow, thou Winter wind"

MR. BARRY LINDON.

Blow, blow, thou winter wind,  
Thou art not so unkind,  
As man's ingratitude;  
Thy tooth is not so keen,  
Because thou art not seen,  
Altho' thy breath be rude.

Freeze, freeze, thou bitter sky,  
Thou dost not bite so nigh,  
As benefits forgot;  
Though thou the waters warp  
Thy sting is not so sharp,  
As friend remember'd not  
(Words from "As you Like it.")  
*Shakespeare.*

"VOCAL POLKA" ... .. *MS.*

MR. VERNON LEE'S OPERA PART-  
SINGERS.

PIANOFORTE SOLO "Valse Caprice"

MISS PHILLIPS.

DUET ... .. *Mendelssohn.*

(a) "I would that my Love."

(b) "Greeting."

MISS HELEN ROZE AND MISS ANNIE  
WILLIAMS.

SONG "The Bay of Biscay" *Davy.*

MR. TREFELYN DAVID.

Loud roars the dreadful thunder!  
The rain a deluge showers,  
The clouds are rent asunder  
By lightning's vivid powers!  
The night both drear and dark,  
Our poor devoted bark,  
Till next day, there she lay,  
In the Bay of Biscay, O!

As length the wished-for morrow  
Broke through the hazy sky,  
Absorbed in silent sorrow  
Each heaves a bitter sigh;

The dismal wreck to view  
Struck horror to the crew,  
As she lay, on that day,  
In the Bay of Biscay, O!

Her yielding timbers sever,  
Her pitchy seams are rent;  
When Heaven, all-bounteous ever,  
Its boundless mercy sent.  
A sail in sight appears,  
We hail her with three cheers!  
Now we sail, with the gale,  
From the Bay of Biscay, O!

"Watch her kindly" *MS.*  
MR. VERNON LEE'S OPERA PART-  
SINGERS.

SONG ... .. *Frederick Bevan.*

"The Flight of Ages"

MISS ANNIE WILLIAMS.

I heard a song—a tender song—  
'Twas sung for me alone,  
In the hush of a golden twilight,  
When all the world was gone;  
And as long as my heart is beating,  
As long as my eyes have tears,  
I shall hear the echoes ringing,  
From out the golden years.

I have a rose—a white, white rose—  
'Twas given me long ago,  
When the song had fall'n to silence,  
And the stars were dim and low;  
It lies in an old book faded,  
Between the pages white,  
But the ages cannot dim the dream  
It brought to me that night.

I have a love—a love of years—  
Bright as the purest star,  
As radiant, sweet, and wonderful,  
As hopeless and as far;  
I have a love, the star of years,  
Its light alone I see,  
And I must worship, hope, and love,  
However far it be.

It is the love that speaks to me  
In that sweet song of old;  
It is the dream of golden years,  
These petals wide unfold;  
And every star may fall from heaven,  
And every rose decay,  
But the ages cannot change my love,  
Or take my dream away.

SONG ... "Big Ben" *Henry Pontet.*

MR. BARRY LINDON.

The silent stars are shining white and  
cold,  
As midnight hour in deep loud tones is  
told.

Big Ben strikes on as in the days gone by  
He told how quickly golden moments fly.  
What cares he if the hours are passed in  
vain,

Or sad dull care feeds on heart and brain?  
The sleeping world, the woes and joys of  
men,

Affect not the heart of the deep Big Ben.  
Again the hour of twelve: and busy life  
Rolls on beneath Big Ben with noisy strife.  
Eyes bright with hope, or dim with un-  
shed tear,

May meet and pass, or awhile linger here,  
Unmoved, old Ben still warns us of time's  
flight

Through day's bright sunshine, or the  
hush of night.

What cares he if the time has passed in  
vain,  
Or hopes have fled, ne'er to come again?  
The waking world, the noise and strife  
of men,

Affect not the heart of the deep Big Ben.

SONG "Thoughts and Tears" *Temple*  
MR. ARTHUR BECKWITH.

Some thoughts are never heard or told,  
They wander unconfess'd  
Through happy pathways known of old  
But still remember'd best!  
Ah! love, believe me if you will,  
Or deem it all untrue;  
I cannot guide my thoughts, for still—  
They wander back to you.

Some thoughts must ever go unspoken,  
Some tears may never softly fall;  
Take mine, unshed, untold for token,  
I love you still, in spite of all.

Some grief must ever rest untold,  
Though to our wistful eyes,  
When thoughts the golden past unfold,  
Great tears will oft' unbidden rise!  
Remember, pity, or forget,  
Whiche'er your heart may do,  
I dare not shed my tears that yet  
Are fain to fall for you.

Some thoughts must ever go unspoken,  
Some tears may never softly fall;  
Take mine, unshed, untold for token,  
I love you still in spite of all.

PLANTATION MELODY "Nolly" ...

(Specially arranged.)

MR. VERNON LEE'S OPERA PART-  
SINGERS

SONG ... "Dear Heart" ... *Mattei*

MISS HELEN ROZE.

So long the day, so dark the way,  
Dear heart before you came,  
It seems to me it cannot be,  
This world is still the same.  
For then I stood as in some wood,  
And vainly sought for light,  
But now day dawns on sunlit lawns  
And life is glad and bright!

O leave me not, Dear Heart,  
I did not dream that we should part—  
I love but thee, O love thou me.  
And leave me not Dear Heart.

With you away, the brightest day,  
Dear Heart, goes by in vain;  
I dare not dream what life would seem  
If you ne'er came again!

Dark ways before would darken more,  
The world would change to me;  
Each sun would set in vain regret  
That morning brought not thee!

O leave me not, Dear Heart,  
I dare not dream that we must part—  
I love but thee, O love thou me,  
And leave me not, Dear Heart.

DUET ... "Love and War" ... *T. Cooke*

MR. DAVID and MR. LINDON.  
While love absorbs my ardent soul,  
I think not of the morrow;  
Beneath his sway years swiftly roll,  
True lovers banish sorrow,  
By softest kisses warm'd to blisses,  
Lovers banish sorrow.

While war absorbs my ardent soul,  
I think not of the morrow;  
Beneath his sway years swiftly roll,  
True soldiers banish sorrow.  
By cannon's rattle roused to battle  
Soldiers banish sorrow.

Since Mars lov'd Venus, Venus Mars,  
Let's blend Love's wounds with battle  
scars,  
And call in Bacchus, all divine,  
To cure both pains with rosy wine,  
And thus, beneath his social sway,  
We'll sing and laugh the hours away.

Doors open at 7 p.m.  
The doors will be kept closed during the performance of each number on the Programme.

Admission 3d.

PROGRAMME OF ENTERTAINMENT

On WEDNESDAY, JANUARY 18th, 1893,

AT EIGHT P.M., BY

THE O I O MINSTRELS.

BONES.—MESSRS. ELTON, McKAY, AND SEYMOUR.

TAMBOS.—MESSRS. HOBGEN, DIXON, AND SEAMAN.

MUSICAL DIRECTOR.—MR. A. KING

Part I.

Part II.

OPENING CHORUS ... BY THE TROUPE.

OVERTURE ... By the BAND.

COMIC SONG ... "The Showman" MR. LESLIE McKAY.

NAUTICAL SONG AND DANCE ... MR. T. ROWLINGS.

NEW SONG ... "A Bunch of Shamrock" MR. W. H. JEFFRIES.

BURLESQUE SCENA ... MR. HARRY ELTON

COMIC SONG ... "Laugh whene'er you can" MR. OWEN HOBGEN.

BALLAD ... "Thy Sentinel am I" MR. P. WEST.

STUMP ORATION... "Anatomy," MR. H. JOHNSTON.

COMIC SONG ... "If ever I ketch dat Coon" MR. LEWIS SEYMOUR.

NEW MUSICAL SKETCH... MESSRS. DIXON & HOBGEN

BALLAD ... "Baby's Love Dream" MASTER POWELL.

INSTRUMENTAL SOLO ...

COMIC SONG ... MR. HARRY ELTON.

DOUBLE SONG & DANCE, MESSRS. DIXON & SEYMOUR

BALLAD ... "A Mother's watch by the Sea" MR. GOWER CANN.

COMIC SONG ... "Learning to Waltz" MR. BERT DIXON.

BALLAD ... "Only a sweet little Letter" MR. J. GRAVES.

TO CONCLUDE WITH THE O I O'S

"GEE-GEE."

COMIC SONG (by desire) ... "The Crazy Ta-ra-ra!" MR. C. SEAMAN.

Characters by MESSRS. BURNS, ELTON, SEYMOUR, and HOBGEN.

To Conclude with "the Mile End Ghost."

ADMISSION TWOPENCE. Students of the People's Palace Classes admitted FREE.

Doors open at 7 p.m.

The doors will be kept closed during the performance of each number on the programme.

PEOPLE'S PALACE TECHNICAL SCHOOLS, MILE END ROAD, E.

Director of Evening Classes, J. L. S. HATTON, M.A.

TIME TABLE OF EVENING CLASSES FOR SESSION 1892-3.

New Term commenced Monday, 2nd January, 1893, and ends on the 30th March.

The Classes, with some exceptions, are open to both sexes without limit of age. As the number which can be admitted to each class is limited, intending Students should book their names as soon as possible. During the Session, Concerts and Entertainments will be arranged for Students in the Queen's Hall on Wednesday evenings, to which they will be admitted FREE upon producing their pass. The Governors reserve the right to abandon any Class for which an insufficient number of Students may enrol. STUDENTS' SOCIAL ROOMS—Students have the privilege of using the social rooms containing the leading daily and weekly papers. STUDENTS' LIBRARY—There is a circulating library for the use of Students, which will be open on Monday and Thursday evenings, from 6.30 to 9.—Refreshments may be obtained at reasonable prices in the social rooms from 5 to 10. LAVATORIES AND CLOAK ROOMS—For the convenience of Students, there are cloak rooms and lavatories, the latter being supplied with hot and cold water. BOOKSTALL—Text-books, drawing paper, pencils, and other requisites for the Classes may be obtained at the book-stall in the ground floor corridor. Apprentices under 20 years of age will be admitted to the Science, Art, and Trade Classes at half fees. For Science, Art, and Trade Classes the Session ends immediately after the examinations in April and May, 1893. C. E. OSBORN, Secretary.

Science Classes.

Specially in preparation for the Examinations of the Science and Art Department.

Table with columns: SUBJECTS, TEACHERS, DAYS, HOURS, FEES. Lists various science subjects like Arithmetic, Algebra, Geometry, etc., with their respective teachers and schedules.

Commercial and General Classes.

Table with columns: SUBJECTS, TEACHERS, DAYS, HOURS, FEES. Lists commercial and general subjects like Book-keeping, Civil Service, History, Geography, etc., with their respective teachers and schedules.

Trade Classes.

Table with columns: SUBJECTS, TEACHERS, DAYS, HOURS, FEES. Lists trade-related subjects like Carpentry, Brickwork, Electrical Engin., etc., with their respective teachers and schedules.

GYMNASIUM.

Under the direction of H. H. BURDETT, assisted by C. WRIGHT. Miss F. A. HICKS. FOR YOUNG MEN. TUESDAY, WEDNESDAY, AND FRIDAY.—6.30 till 8. Free Practice; 8 till 9 Musical Drill, Dumb-bells, Bar-bells, and Indian Clubs, Physical Exercises, Single-sticks; 9 till 10, Gymnastics. Fees, 2/6 per term, including locker. TUESDAY & FRIDAY.—7.0 till 8.0, Fencing with Foils and Sticks. Fee, 5/- per term. A Boxing Club is formed among the members of the Gymnasium, who arrange the fees. FOR YOUNG WOMEN. MONDAY AND THURSDAY.—6.30 till 8. Free Practice; 8.0 till 10.0. Dumb-bells, Bar-bells, Indian Clubs, Physical Exercises, Gymnastics and Running Maze. Fees, 2/6 per term, including locker. 7 till 8. Fencing. Fee, 5/- per term. JUNIOR SECTION. Boys, Wednesday, 6.30 till 9.30. GIRLS, Thursday, 6.30 till 8.30. Sixpence per month, which includes attendance at two Educational Classes.

SCHOOL OF ART.

Table with columns: SUBJECTS, TEACHERS, DAYS, HOURS, FEES. Lists art-related subjects like Freehand & Model Drawing, Perspective Drawing, etc., with their respective teachers and schedules.

Per Session (ending immediately after the Examination of the City and Guilds Institute in May, 1893). Free to those taking the Workshop Classes in the same subject. b 12s. 6d. for both, but only Members of the Lecture Class will be allowed to join the Workshop Class in Plumbing. c Free to all Engineering Students. To persons joining the Trade Classes who are not actually engaged in the trade to which the subjects refer, double fees are charged. No one can be admitted to the Plumbing Classes unless he is engaged in the Plumbing Trade. The above fees for Workshop instruction include the use of all necessary tools and materials.

a 7/6 the Session commencing Sept. 26th and ending July 8th, 1893. 5/- the Half-Session ending February 18th, 1893. b 1/6 Session; 6/- Half-Session, c 15/6 Session; 10/6 Half-Session. \* Students of the Wood Carving Class are expected to attend a Drawing Class in the Art School one evening per week free of charge. † Term of 12 weeks.

**Nautical Classes.**

SUBJECTS.	TEACHERS.	DAYS.	HOURS.	FEES.	Per Term.
*Navigation, Elementary	W. H. Rosser	M., W., & F.	7.0-9.30	20 0	1 6
" " Advanced	"	" " "	7.0-9.30	47 0	
*Cookery	Henry Slim	M., T., W., and Fr.	2.30	5 0	3 6
			5.30	3 6	

\* Apprentices, Half Fees. † 12 Lessons. ‡ 6 Lessons.

**Classes for Women only.**

SUBJECTS.	TEACHERS.	DAYS.	HOURS.	FEES.	Per Term.
Ambulance—Nursing	R. Milne, M.D.	Mon., 16 Jan.	8.0-9.30	1 0	6 0
Dressmaking	Mrs. Scrivener	Mon. & Wed.	4.0-5.30	7 6	
" " Advanced	"	Thursday	6.0-7.30	10 0	5 0
Millinery	Miss Newell	Tuesday	6.0-7.30 & 7.30-9.0	5 0	
Cookery—High Class	Mrs. Sharman	Thursday	6.30-8.0	10 6	5 0
" " Practical	"	Thursday	8.0-9.30	5 0	
Reading, Writing, Arithmetic etc.	Mrs. Thomas	Friday	8.0-9.30	2 6	3 6

\* Conty.

**School of Music.**

(Under the direction of Orton Bradley, M.A.)

SUBJECTS.	TEACHERS.	DAYS.	HOURS.	FEES.	Per Term.
Choral Society	Orton Bradley, M.A.	Tuesday	7.30-10.0	1 6	5 0
Harm. & Singing	B. Jackson	Friday	8.0-10.0	5 0	
No. 1. Night Singing Class	W. Harding Bonner	Tuesday	8.0-9.0	2 0	2 0
" 2. School Teachers Music Class	"	"	9.0-10.0	2 0	
" 3. Junior Singing Class	"	"	6.0-6.45	1 0	1 0
" 4. P.P. Junior Choir	"	"	6.45-8.0	1 0	
♫ Solo Singing	Miss Delves-Yates	Tuesday	6.0-9.0	45/-	9 0
♫ Pianoforte, Elementary and Advanced	Claude Hamilton, Ms. Spencer, & W.V. King	Thurs. & Sat.	4.0-10.0	9 0	
Orchestral Society	Orton Bradley, M.A.	Thursday	7.0-10.0	15 0	5 0
Violin	W. R. Cave	Tu. and Fri.	8.0-10.0	5 0	
Viola and Violoncello	Under the direction of W. R. Cave, assisted by G. Mellish	Monday	6.0-10.0	5 0	7 6
Mandoline	B. M. Jenkins	Tuesday	6.0-10.0	5 0	

<sup>a</sup> Reduced fee t. Members of the Choral Society  
<sup>b</sup> In these subjects the Students are taught individually, each lesson being twenty minutes duration.

**PROGRAMME OF LECTURE**  
**On MONDAY, JANUARY 16th, 1893,**

Commencing at 8 p.m.

BY THE

**Rev. NEWTON VANSTONE,**

ENTITLED

**"THE STARRY REALMS."**

Illustrated by Oxy-Hydrogen Limelight Dissolving Views.

The Constellations will be described in an interesting manner by the use of a Revolving Planisphere originated and introduced for the first time by the Lecturer. The planetary system, eclipses, tides, &c. will be illustrated by the latest inventions in optical and mechanical science. Views of Mars and the moon as seen through the great Lick telescope.

**SYNOPSIS.**

Relative sizes of the sun and planets. Apparent sizes of the sun as visible. Telescopic view of solar disc. Typical sun spots. Tones of sun spots. Comparative sizes of the principal planets. Telescopic appearances of Venus. Constant inclination of earth's axis to the ecliptic. The seasons. Curvature of the earth's surface. Full moon. The tides. Lunar eclipses. Solar eclipses, 1836 to 1860, Total solar eclipses. Views of solar prominences. Moon at first quarter. Moon at third quarter. Triest-necker. Ideal lunar landscape. Views of Mars. Comparative sizes of Jupiter and earth. Comparative sizes of Saturn and earth. Views of Saturn. Orbits of Uranian satellites. Diagram explaining discovery of Neptune. A shooting star. Meteoric shower. Ring of meteoric bodies round the sun. Great comet of 1811. Halley's comet. Donati's comet. Coggia's comet. The celestial sphere and diurnal motion.

Doors open at 7 p.m. Admission, 1d. Reserved Seats, 3d.

**Paris and London:  
A Bundle of Contrasts.**

In a preface to a new book, M. Félix Pyat—who knows England well, having lived here as a political refugee for thirty years—has indicated, in an original and picturesque fashion, many points of dissidence between the social customs of the two nations. The following is from the preface of M. Pyat's work:

"Paris is right-handed, London left-handed. The Parisian coachman keeps to his right, the London one to his left. The former is seated in front of the carriage, the latter behind. Paris is compact, London scattered. The heart of Paris is the Hotel de Ville, that of London is the Bank. . . . Paris has a girdle of fortifications and an *octroi*, London has neither walls nor town duties. Paris increases by absorption, London by expansion. Paris is built with stones, London with bricks.

"Paris has high houses and narrow streets, London wide streets and low houses. Houses in Paris have wide doors, as a rule, in London the doors are small. In fact, Paris has its doors larger than its windows, whilst London has its windows larger than its doors. Paris has espagnolette windows, opening like doors, London guillotine windows. Paris has its shutters outside, London inside. Paris is collectivist, London individualist.

"Paris dwells in masses, inside barracks and convents; London lives in private, a home for each family. Paris has its portier (door-keeper, London its key. Paris has its public cafes, London its exclusive clubs. Paris sleeps in a bed placed alongside the wall, London in the middle of the room. Paris rises early, London late. Paris pronounces *cacao*, London *cocoa*. . . . Paris is large, London is enormous. Paris dines, London eats. Paris takes two meals a day, London four. London, says Voltaire, has a hundred religions and one sauce, Paris has a hundred sauces and no religion.

"London has a three-pronged fork, Paris a four pronged one. Paris uses a napkin, London the tablecloth. . . . Paris eats corn, London drinks it. Paris eats boiled meat, London roasted. Paris eats fried potatoes, London boiled. Paris loaves are long, London loaves are square. Paris likes the white of turnips, London the green. Paris puts butter in its *bricoles*, London on its bread. Paris drinks wine, London beer. Paris takes coffee, London, tea. Paris at table is sociable, London, isolated.

"Paris is gay, London dull. Paris whips the horses, London flogs its criminals. Paris lounges, London goes. Paris makes laws during the day, London during the night. Paris has spring showers in March, London in April. London has but few soldiers, Paris too many. In Paris the soldier is a power, in London a nonentity. The Paris soldier wears red trousers and a blue coat, the London soldier a red coat and blue trousers. The former is always armed, the latter carries a short stick. The Paris soldier is a conscript, the London soldier a volunteer. In Paris priests celebrate the marriages, in London they themselves get married.

In Paris girls are rigidly guarded, in London they are free. In Paris married women are free, in London they are not. Paris opens its museums on Sundays, London on week days. In Paris churches are always open, in London they are nearly always closed. Paris warms herself with wood, London with coal.

Paris buries her dead too soon, London too late. Paris throws her refuse into the streets, London keeps it inside. Paris retains her sewage in the house, London throws it at once in the river. Paris has more mad people, London more idiots. Paris has more suicides, London more homicides. Paris is more of an artist, London more of a merchant. In Paris men are more lively than horses, in London horses are more frisky than men. Paris works, London traffics.

London is religious, Paris humane. Paris is democratic, London aristocratic. Paris workmen call each other citizens, London workmen mechanics. The former work in their blouses, the latter in coats. Working Paris wears a *casquette* (a cap), working London a hat. *Canaille* Paris fights with the feet, a London mob with its fists. Working Paris calls the pawnbroker "my aunt," working London "my uncle."

**THE BATTLE OF LIFE.**

Go forth in the Battle of Life, my boy,  
Go while it is called to day;  
For the years go out, and the years come in,  
Regardless of those who may lose or win,  
Of those who may work or play.  
And the troops march steadily on, my boy,  
To the army gone before;  
You may hear the sound of their falling feet,  
Going down to the river where two worlds meet;  
They go to return no more.

There is room for you in the ranks, my boy,  
And duty, too, assigned;  
Step into the front with a cheerful grace:  
Be quick, or another may take your place,  
And you may be left behind.  
There is work to do by the way, my boy,  
That you never can tread again;  
Work for the loftiest, lowliest men—  
Work for the plough, adze, spindle, and pen;  
Work for the hands and the brain.

The *Serpent* will follow your steps, my boy,  
To lay for your feet a snare;  
And Pleasure sits in her fairy bowers,  
With garlands and poppies and lotus flowers  
Enwreathing her golden hair.

Temptations will wait by the way, my boy,  
Temptations without and within;  
And spirits of evil, in robes as fair  
As the holiest angels in heaven wear,  
Will lure you to deadly sin.

Then put on the armour of God, my boy,  
In the beautiful days of youth;  
Put on the helmet, breast-plate, and shield,  
And the sword that the feeblest arm may wield,  
In the cause of Right and Truth.

And go to the Battle of Life, my boy,  
With the peace of the Gospel shod;  
And "strong in the Lord," by "the Spirit's might,"  
Thou shalt conquer the foe in the holy fight,  
And wear the crown of God.

**CROSSING THE BAR.**

SUNSET and evening star,  
And one clear call for me!  
And may there be no moaning of the bar,  
When I put out to sea.

But such a tide as moving seems asleep,  
Too full for sound and foam,  
When that which drew from out the boundless deep  
Turns again home.

Twilight and evening bell,  
And after that the dark!  
And may there be no sadness of farewell;  
When I embark;

For tho' from out our bourne of time and place  
The flood may bear me far,  
I hope to see my Pilot face to face  
When I have crossed to bar.

They are slipping away—these sweet, swift years,  
Like a leaf on the current cast;  
With never a break in the rapid flow,  
We watch them as one by one they go,  
Into the beautiful past.

As silent and swift as a weaver's thread,  
Or an arrow's flying gleam;  
As soft as the languorous breezes hid  
That lift the willow's long golden lid,  
And ripple the glassy stream.

As light as the breath of the thistle down,  
As fond as a lover's dream,  
As pure as the flush in the sea shell's throat,  
As sweet as the woodbird's wooing note,  
So tender and sweet they seem.

One after another we see them pass  
Down the dim lighted stair,  
We hear the sound of their steady tread,  
In the steps of the centuries long since dead,  
As beautiful as a fair.

There are only a few years left to love;  
Shall we waste them in idle strife?  
Shall we trample under our ruthless feet  
Those beautiful blossoms, rare and sweet,  
By the dusty ways of life?

There are only a few swift years—ah let  
No envious taunts be heard;  
Make life's fair pattern of rare design,  
And fill up the measure with love's sweet wine,  
But never an angry word.

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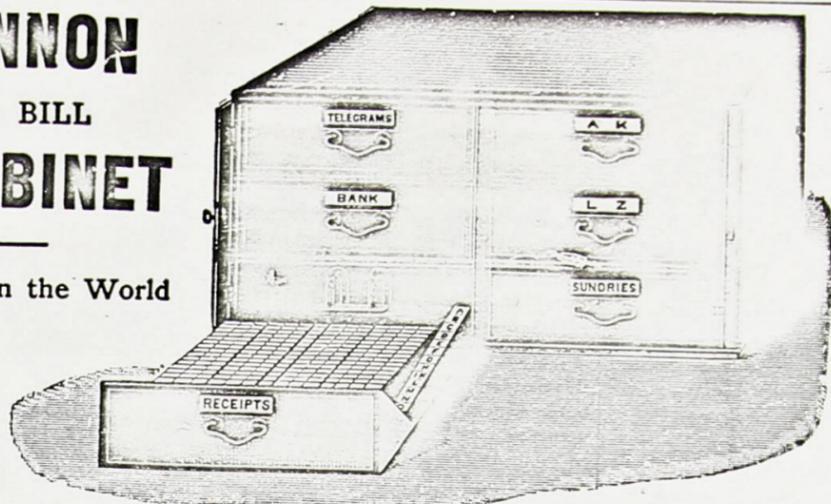
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Dec. 5	...	461	1	18	5	Dec. 16	...	1,442	6	0	2
" 6	...	371	1	10	11	" 17	...	2,140	8	18	4
" 7	...	549	2	5	9	" 19	...	1,938	8	1	6
" 8	...	94 (Thursday)	0	7	10	" 20	...	1,598	6	13	2
" 9	...	575	2	7	11	" 21	...	1,914	7	19	6
" 10	...	814	3	7	10	" 22	...	159 (Thursday)	0	13	3
" 12	...	1,055	4	7	11	" 23	...	1,810	7	10	10
" 13	...	1,130	4	14	2	" 24	...	1,367	5	13	11
" 14	...	638	2	13	2						
" 15	...	130 (Thursday)	0	10	10						
			TOTAL .. 13,185			TOTAL ... £75 15 5					

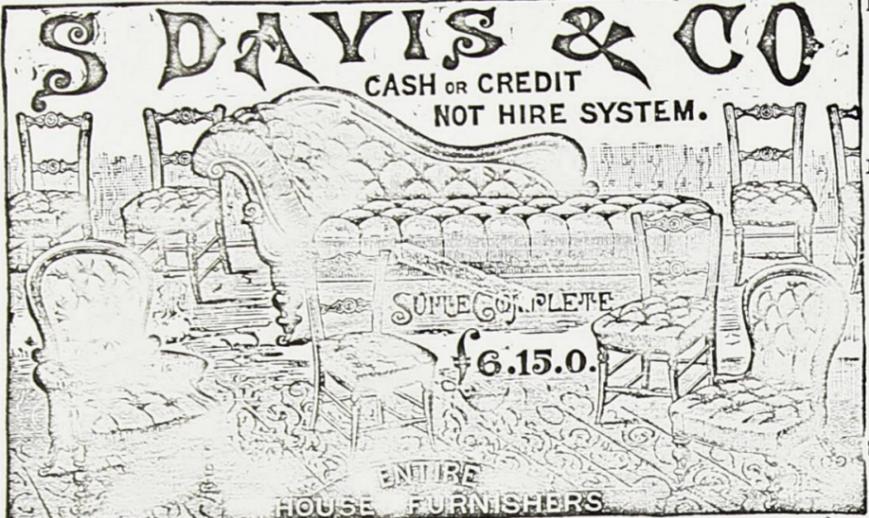
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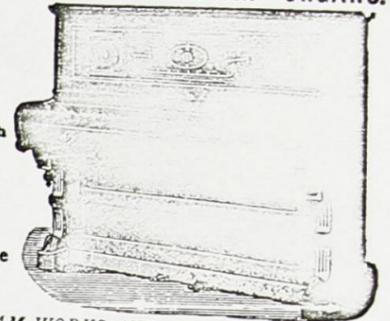
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