PUTTING HARNESS ON SUN.

Glorious Orb Forced to Do Drudgery for the Sons of Men.

(Iron Age.)

Within the last few years no invention has given such an impetus to the development of the arid lands as the successful operation of the solar motor. There are vast regions in Utah, Colorado and surrounding States and Territories which depend upon the same conditions as Lower California for their development. The solar motor is being introduced in these sections to operate mine machinery and pumps that are located far away from the railroads and all natural fuel. The skies are almost cloudless in these regions the year round and the sun's rays are so warm the machinery can be put in operation within an hour after sunrise.

The size of the solar motors now in use averages from five to ten horse power, and experiments have shown that it is unwise to attempt to build larger ones. By constructing them in groups, however, the same results are obtained, and in several plants a series of two or three are being constructed to produce in the aggregate from twenty to forty horse power. The solar motor used is the outcome of experiments. In Europe many efforts were made to utilize the sun's heat to melt different kinds of metal, and such success attended these efforts a quarter of a century ago that in France iron could be melted, within sixteen seconds by mirrors only four feet in diameter.

In England, some twenty years ago, a reflector, three feet in diameter, was built that fused granite in one minute and melted a small cube of iron in three seconds. The enormous possibilities of such heat rays, when concentrated upon a small surface, were taken up by practical scientists, who sought to build working plants with mirrors in places of furnaces burning coal. Sir William Herschel made the first practical attempt in Africa, where the sun's rays were considered strong enough to give the best results. The results of this experiment were satisfactory, and Sir William Herschel published an account of his work in England, predicting that the sun could be made to do all the work required in Africa if proper machines were constructed. In spite of this reliable scientist's predictions nothing was done to take advantage of conditions that seemed to promise great fortunes to those who succeeded in harnessing the sun for industrial purposes.

In this country Capt. Ericsson was the first to make a solar motor. It did not prove an entire success, but his work paved the way for later efforts. Within the next five years different attempts were made without success. Ericsson's plan of a machine was tried again, and the same failure happened as to the original in 1884. Another attempt, made at Longwood, Cal., added further discouragement to the pioneers in the industry.

The first which attained any degree of success was the solar motor erected in Denver five years ago, and which produced nearly five horse power with considerable ease. It was this effect which led to further enthusiastic experiments until one of the large solar motors was constructed at Los Angeles two years ago. This motor has become the model for nearly all the others now springing up. It is not a perfected motor yet, but it has attained a degree of perfection which enables the owners to secure good work with it. Its cost also is so reasonable that it is not likely to limit its use to particular lines. For individual farms of ten to one hundred acres it is eminently suited, either for pumping purposes or for generating electricity for lighting and power. For mines and general pumping stations it is equally well adapted.

The huge disk of glass which serves as the heat reflector of the sun's rays looks like a huge inverted lamp. It is thirty-three feet in diameter at the top and thirteen feet at the bottom. The inside of this huge disk is made of glass, all arranged at such angles that the sun's rays will be directly focused upon the boiler. The arrangement of these individual pieces of glass is ingenious and much of the success of the experiment is due to this. Each glass is practically a small mirror, which follows the sun and reflects the rays at one central point throughout the day.

STRANGE ARMY IN PARIS.

Over Forty Thousand People Live Solely by Their Wits.

Without counting the vagrants and professional beggars, there are no less than 40,000 people in Paris who have not the least idea where they are to get their breakfast when they get up in the morning. They go to make up a strange army, the like of which could hardly be found in any other city in the world. They are, in fact, living examples of people who live solely by their wits.

Where else in the world would one look for a man to skim a river but in Paris? And yet, incredible as it may seem, there is one man among that 40,000 who makes it his business to skim the Seine daily. He sleeps under some friendly bridge arch in the summer months, and in the winter no one knows, or cares, for that matter, where he finds shelter. He is up at the first peep of dawn and out in a rickety old flat boat, armed with a skimming pan.

With this he skims off the surface of the river the grease that gathers in the night. This he takes to a soap factory, where he receives a franc or two for his stock. On that sum he gets his breakfast, dinner and supper. For more than that, or the next day, he has no thought.

There are others who live by fishing the Seine for corks. Early in the morning they get out on the river banks, and, armed with a short pole on the end of which is a small improvised net, they gather up the floating corks. When the river has been fished clean of the stoppers the anglers take their harvest to the cork merchants in the neighborhood and sell them for whatever they will bring.

Another singular member of this army is the rat tamer. He is a proud man, for he has cards proclaiming his business. They read:

"Valin, rodent specialist."

The business of this "specialist" is to breed and raise rats for fairs, circuses and the medical colleges. If you want a family of rats to do tricks, all you have to do is to call on Valin, tell him what kind of stunts you prefer to have the rats to do, and a few weeks after he will have what you desire. If the medical college stands in need of a consignment of rats for vivisection Valin always can be relied on to furnish them.

Valin's house is a modern Noah's Ark. In it is a collection of nearly every kind of small animal. The house is filled with cages. Every nook and cranny contains some sort of animal family, and Valin is there always training his little pupils.

The home of Valin would be a creepy place for a man with nerves to sleep in, for he keeps lizards, adders and frogs by the score for sale. This year he has sold 2,000 adders, 8,000 salamanders and 30,000 frogs.

"Father Cockroach" is the one member of the army who has risen to the dignity of a place in the Paris directory. He undertakes for a price to rid your house of the little pests, and is one of the busiest men in the city. He has regular patrons, who pay him by the month or year to keep their house free from the insect.

The business of the "Public Writer" has only one person left to represent it, although a score of years ago you could find one every few blocks. This person is a woman who makes it her business to write letters for the illiterate. For an ordinary letter she expects a fee of 10 cents, for a love letter 30 cents, while a proposal of marriage calls for the payment of 40 cents—and she says it's cheap at that.

One of the happiest of this strange throng is the luckless sculptor, who, failing to make a living in his art as an art, turned his talent into another channel that would insure him against starvation. At all the Ham Fairs he is the man who moulds the merchants' lard into fantastic forms.

TAKING THE FARMER DOWN.

Bumptious Rustic Had to Turn Over His Money to the Wag.

A couple of individuals were recently gazing with admiration at a fine fat beast at a cattle show.

"I wonder what his weight might be?" observed one of them, who, as it happened, was a cockney without any special knowledge.

"It's easy enough to guess pretty nigh it," said the other man, a stalwart farmer, looking with some contempt at his companion.

"Oh, well," said the cockney, "I think I could guess as near as you can."

"Could ye, now?" roared the farmer. "Well, I'll bet ye a sovereign ye can't."

"Done!" returned the cockney. "How much do you say?"

"After a critical survey, the farmer replied:

"A hundred and seventeen stone."

"Well," said the cockney, "I'll say a hundred and seventeen stone, too. Now hand over the money."

"What d'ye mean?"

"Well, I said I'd guess as near as you, and I've done so. I've guessed exactly the same."

And the bystanders taking his part, the bumptuous farmer had to give him the money.

Hello!

Have you heard of the New Century Ball Bearing Washing Machine?

If you use it once you would ring this in on all your friends. It is the acme of perfection—you sit when using it—no handling of the clothes necessary to clean them perfectly—five minutes does a tubful. Costs only $8.50.

Your dealer can procure them. We will send a descriptive booklet on application.

THE DOWSWELL MFG. CO. LTD. HAMILTON, CANADA

A CLEVER DIVINE.

"To the town of Norridgewock, in Maine," said Rev. Minot J. Savage, of New York, "a strange minister came to preach. He preached duly, and, after the sermon was over, he mingled with the congregation, expecting that some one would invite him to dinner.

"One by one, however, the congregation departed, offering the hungry minister no hospitality, and he began to feel anxious. Where was he to eat?

"As the last deacon was leaving the church, the minister rushed up to him and shook him warmly by the hand.

"'I want you to come home and dine with me,' the minister said.

"'Why, where do you live?' said the deacon.

"'About thirty miles from here.'

"The deacon reddened. 'Oh, you come and dine with me instead,' he said."

Diplomacy.

Knicker—How did you persuade the landlord to admit the baby?

Bocker—I proposed it as a mascot.

Use ONLY the SOFT, SILKY, TOUGH TOILET PAPERS

MANUFACTURED BY EDDY

ESTABLISHED A.D. 1855

Insist on being supplied with one of the following brands:—

In Rolls—"Standard," "Hotel," "York," "Mammoth," &c.

In Sheets—"Imperial," "Royal," "Regal," "Orient," &c.

HE'S ONLY ONE OUT OF SCORES

But Dodd's Kidney Pills made him a New Man.

Richard Quirk, doctored for a dozen years and thought his Case Incurable—Dodd's Kidney Pills Cured him.

Fortune Harbor, Nfld., June 13.—(Special.)—Scores of people in this neighborhood are living proofs that Dodd's Kidney Pills are all Kidney ailments from Backache to Bright's Disease. Amond the most remarkable cures is that of Mr. Richard Quirk, and he gives the story of it to the public, as follows;

"I suffered for over twenty years from Lumbago and Kidney Disease, and at intervals was totally unable to work. After ten or twelve years of doctors' treatment I had made up my mind that my complaint was incurable. Reading of cures by Dodd's Kidney Pills tempted me to try them. I did so with little faith, but to my surprise I had not taken more than half a dozen boxes before I felt relief and after the use of seven or eight boxes, I was fully cured and a new man.

"Yes, Dodd's Kidney Pills cured my Lumbago and Kidney Disease, and the best of it is I have stayed cured."

Self-Sacrifice of a Society Woman.

A "society note" much out of the usual order was that which appeared recently announcing the action of Miss Zoe Blair, one of the most popular social leaders of St. Louis, in voluntarily giving up a life of pleasure to work among the sick poor. This determination on the part of Miss Blair followed her participation in a charity entertainment, during which she discovered how wide a field there was for just such self-sacrificing labors as she is now engaged in. She took a course of instruction at a nurses' training school in New Orleans, and is now quite capable of caring for sufferers from any illness. She says she is much happier than she was when living amid a round of balls, parties and receptions—and who can doubt it?—Leslie's Weekly.

Minard's Liniment Lumberman's Friend.

NOTHING TO DO BUT EAT.

"I was born in the Ohio town of Alva," said Thomas A. Edison. "It is from Alva that I get my middle name.

"An old-time Alva friend of mine was a rich young farmer whom I'll call Josh. Josh, when he was about twenty-four, made his first visit to New York. He took a room at a good hotel, and after he had unpacked his Gladstone bag, he went to the desk to inquire about the meals.

"'What is th eatin' hours in this yere house?' he said to the clerk.

"'Breakfast,' the clerk answered, '7 to 11. Lunch, 11 to 3. Dinner, 3 to 8. Supper, 8 to 12.'

"'Jerusalem,' said Josh. 'When am I goin' to git time to see the town?'"

Ask for Minard's and take no Other.

THE MOST DEADLY POISON.

Three Grains Would Kill Many Persons.

A new and most deadly poison has been discovered recently, as noted in a scientific journal, by Mr. Lascelles Scott, an Englishman. The substance is scientifically known as di-methylarsine cyanide, or more familiarly as cyanide of cacodyl. Three grains of this substance diffused in a room full of people would kill all present. It is a white powder, melting at 33 degrees, and boiling at 140 degrees. When exposed to the air it emits a slight vapor, to inhale which is death. After trying its effect upon animals Mr. Scott experienced the deadly nature of this poison. One-millioneth part of cyanide of cacodyl in the atmosphere of an air-tight cage killed a dog almost instantaneously, and then its power was by no means exhausted, for a second, third and fourth dog placed in the same cage instantaneously died from the effect of that single infinitesimal dose. Although so little of the properties of this poison are known, it was first made many years ago. Cadet the famous French chemist, by combining acetate of potassium with white arsenic, produced a fuming liquid, which, although he did not know it, was oxide of cacodyl. The German chemist, Bunsen, combined this with cyanogen, a radical of prussic acid, and made cyanide of cacodyl

At the Yarmouth Y. M. C. A. Boys' Camp, held at Tusket Falls in August, I found MINARD'S LINIMENT most beneficial for sun burn, an immediate relief for colic and toothache. Alfred Stokes, General Secretary.

CHURCH MEMBERS SCORED.

That the churches have lost immensely in membership and influence by the neglect of their social mission is a fact upon which all the best and most competent observers and students of modern religious conditions agree. In some remarks to a Sunday school class the other day, Mr. John D. Rockefeller dwelt upon this deplorable lack of sociability in the churches, stating that his wife had gone to a church for eighteen years without ever having had a word spoken to her. That experience, we believe, could be duplicated in many instances, especially in the larger city congregations. It is quite true that the church is not designated primarily as a social club; neither, on the other hand, is it designed to be a social refrigerator. A religion that has not enough heart in it, enough warmth of feeling, enough kindliness and sympathy, to thaw out the social ice among the fellow-members of the same church and bring them together in some degree of mutual interest, is not the kind of religion that will ever redeem the world.—Leslie's Weekly.

OVERDONE EXPRESSIONS.

Winning Paper in a Contest for Contributions on Hackneyed Terms.

London Tit-Bits recently offered a prize for the best contribution on hackneyed terms used in writing and speaking, and here is the winning paper; it purpots to be a law against the use of worn out expressions:

Be it enacted by the King's most excellent Majesty, by and with the advice and consent of the Long Suffering and Sorely Afflicted Reading Public, and by the Authority of the same, as follows:

First—Any journalist, litterateur, novelist, penny-a-liner, or any other inkslinger, who, after the passing of this act, shall write, print or publish, or cause to be written, printed or published, any of the following or similar hackneyed or over-used phrases—that is to say, in alluding to the awful mystery of death shall refer to "that bourn from whence no traveller returns"; or in mentioning a deceased person, shall write of him or her as having "shuffled off this mortal coil"; or shall designate the condition of the unmarried as a "state of single blessedness," or speak of a newly married couple as "the happy pair," or of a wife as "the better half," or shall deny by implication an indisputable scientific fact by asserting the possibility of a person's being "conspicuous by his absence"; or shall write with profane pen the expressions "a sight for the gods" or "a sight to make angels weep," or, in reference to physical attributes or peculiarities, shall use any of the following expressions: "The bated breath," "the human form divine," "eagle glance," "magnetic gaze," "dilated nostrils," "willowy form," "arch smile," "daintily gloved hand," "flowing lock," "golden tresses," "delicately tinted lips," "the inner man," or shall speak of the "popular president," "the courteous general manager," "the genial secretary," "the charming hostess," "a few well chosen words," "the succulent bivalve," "the psychological moment," "so near, yet so far," "last but not least," "a dull sickening thud," "his own inimitable style," "old Sol," "the gentle light of the moon," "a cool million," or shall use any similar hackneyed expressions, such persons shall be guilty of a misdemeanor, and, being thereof convicted by public opinion, shall be compelled to pay away half his salary to the Home for Old Jokes, and the delinquent shall offer an ample apology to the public, and agree never again to infringe the provisions of this act.

Wash greasy dishes, pots or pans with Lever's Dry Soap a powder. It will remove the grease with the greatest ease. 36

UP-TO-DATE APHORISMS.

Originate, originate more, always originate; those who originate are the pioneers of thought, who lead humanity to the promised land.

Love is friendship with one desire present, and all the others absent; friendship is love with one desire absent, and all the others present.

A cottage is enough for the honeymoon, but the full moon requires a palace.

Friendship is a name which we often give to familiarity.

A man and his honeymoon soon part. Gold is the radium which warms every heart.

"Love me, love my dog," is a proverb. Who says, however, "Love me, love my friend?"—London Truth.

Most people think too lightly of a cough. It is a serious matter and needs prompt attention. Take

Shiloh's Consumption Cure The Lung Tonic

when the first sign of a cough or cold appears. It will cure you easily and quickly then—later it will be harder to cure.

Prices, 25c., 50c., and $1.00. 311

SOME ECCENTRIC WILL MAKERS.

Testator Who Wanted His Skin Converted Into Drumheads.

There have ben many will makers more eccentric than Mr. MacCaig, the Oban banker, whose last testament will shortly come under the consideration of the Edinburgh Court of Session. Mr. MacCaig, it may be remembered, left instructions in his will that gigantic statues of himself, his brothers and sisters, a round dozen in all, should be placed on the summit of a great tower he had commenced to build on Battery Hill, near Oban—each statue to cost not less than £1,000.

A much more whimsical testator was a Mr. Sanborn, who left £1,000 to Prof. Agassiz to have his skin converted into drumheads, and two of his bones into drumsticks, and the balance of his fortune to his friend, Mr. Simpson, on condition that on every 17th of June he should repair to the foot of Bunker Hill, and, as the sun rose, "beat on the drum the spirit-stirring strain of Yonkee Doodle."

A Mr. Stow left a sum of moeny to an eminent K. C., wherewith to purchase a picture of a viper stinging his benefactor," as a perpetual warning against the sin of ingratitude.

It was a rich brewer who bequeathed £30,000 to his daughter on condition that on the birth of her first child she should forfeit £2,000 to a specified hospital, £4,000 on the birth of the second child, and so on by arithmetical progression until the £30,00 was exhausted.

Mr. Sydney Dickenson left £60,000 to his widow, who apepars to have given him a bad time during his life, on condition that she should spend two hours a day at his graveside "in company with her sister, whom I know she loathes worse than she does myself."

Keep Minard's Liniment in the House.

"SO LONG."

With respect to the origin of the familiar parting salute, "So long," there is a suggestion, says the London Globe, that it is derived from the Norwegian "Saa Laenge," a common form of farewell, equivalent in meaning to "au revoir," and pronounced like "so long," with the "g" softened. There was a fair number of Norwegians among the settlers in America, to judge by names, and it is quite likely the phrase was picked up from them. It is in general use among the Dutch in South Africa.

The satisfaction of having the washing done early in the day, and well done, belongs to every user of Sunlight Soap. 10B

VAIN IN SIGHT OF DEATH.

Women Suicides Are Invariably Careful of Appearance of Their Bodies.

"The average woman is apt to carry her vanity to the grave," said an undertaker yesterday. "I have freqeuntly noticed this in suicide cases, of which I have had more than my share. When a man grows tired of life and makes up his mind to end his troubles he does it without thinking of what sort of corpse he will make. His only idea is to make sure of the job. But do you suppose a woman feels that way about it? Not on your life. She never loses the feminine instinct to prink up and make a good appearance. Nine times out of ten she will put on the best clothes she has, even though she may be going to throw herself into the river, where her body may remain for months. How often do you read in the newspapers descriptions beginning: 'The body of a well-dressed woman,' etc.? You seldom hear of a woman disfiguring her features, either. If she is going to shoot herself she invariably aims at her heart, never at her head."—Philadelphia Record.

Minard's Liniment is used by Physicians

TOO MUCH COURTING IN CHURCH.

An English Minister Searching for Some Way to Curb It.

The vicar of St. Paul's, Scotforth, Lancashire, says the London Mail, has incited suggestions from his congregation for the curtailment of opportunities for courting in church.

One member of the congregation has proposed that offenders should be placed in seats nearer the pulpit, and the vicar's own remedy is the drafting of a "black list," The curate hinted at a separation of the sexes, and mentions that he has even heard of photographs being handed about by young pople in th church.

Th vicar certainly thought it a duty to restrain the practices as far as possible, and finally two laymen were appointed to discuss and recommend preventive measures.

Standard Service

The concensus of opinion is that the New York Central is the correct line to New York, Boston and points east. Your ticket agent will tell you all about it.

"CHILD OF PEACE."

Why a Princess of Hesse Was Known as "Friendenskind."

Princess Henry of Prussia, says the London Graphic, is a daughter of that doughty soldier, Prince Louis of Hesse, who invited all the officers and men of the cavalry brigade he commanded during the war of 1866 to stand sponsors to the little girl born during that stormy period. The christening did not take place until peace was proclaimed, and the princess, in the presence of a good number of her 4,000 godfathers, received the name of "Irene," signifying "Peace," and was known as "Friendenskind," or "the child of peace." The prince and princess have recently experienced the grief of losing their four-year-old son, Prince Henry, through the effects of an accident, caused by a fall when jumping from one chair to another in his nursery.

HE SNORED TOO LOUD.

Says an Omaha, Neb., special to the Chicago Tribune: The plea that her husband snored so loudly that she could not sleep did not suffice to secure a divorce for Mrs. Albert Phenix, and her application was refused by the authorities.

Mrs. Winslow's Soothing Syrup should always be used for Children Teething. It soothes the child, softens the gums, cures wind colic and is the best remedy for Diarrhœa.

B & C

LONG HIP

A POPULAR CORSET FOR 1904 STYLE 253

NO BRASS EYELETS

MANUFACTURED ONLY BY BRUSH & Co., TORONTO, - ONT.

ALL WATERED IT.

"Years ago when I left home," said W. H. Donahey, of Cleveland, Ohio, "I got a job in a country printing office. Some one gave the editor a jug of applejack brandy. One day, while we were all at work, a man came in to pay his subscription, and the editor took him into the sauuctum and shut the door. 'Gee, but that's mighty thin brandy,' were the words that came through the thin board partition.

"I began to snicker. 'Shut up,' said the foreman; 'I've been drinking and watering it.'

"'So have I,' said the editor's son.

"'So have I' said I."

NINE MILLION ACRES

Government Lands for Homesteaders

In western Nebraska near the Union Pacific Railroad in section lots of 640 acres each, for almost nothing. The salubrity of these lands is something remarkable. Distance from railroad is three to thirty miles. There will be a grand rush of homesteaders. This is the last distribution of free homes the United States Government will ever make in Nebraska. Write for pamphlet telling how the lands can be acquired, when entry should be made, and other information. Free on application to any Union Pacific agent.

BILLIARDS IN A LION'S CAGE.

Ipswich, in England, was recently the scene of an extraordinary billiard match. The manager of a circus offered to play any one in the lions' cage, and an amateur, well known in that part of England, accepted the challenge. Consequently a table was placed in the cage and at the appointed hour the game began in the presence of an immense crowd. The only other person in the cage was a woman, who is skilled in taming animals. She carefully watched the nine or ten lions as they strode to and fro, but her vigilance was apparently unnecessary, for the animals did not pay the slightest attention to the players.

The manager won the game, but the applause which greeted him was not more hearty than that which was accorded to the amateur, who had shown such rare courage in venturing unarmed into a cage of lions.

$100 REWARD, $100

The readers of this paper will be pleased to learn that there is at least one dreaded disease that science has been able to cure in all its stages and that is Catarrh. Hall's Catarrh Cure is the only positive cure now known to the medical fraternity. Catarrh, being a constitutional disease, requires a constitutional treatment. Hall's Catarrh Cure is taken internally, acting directly upon the blood and mucous surfaces of the system, thereby destroying the foundation of the disease, and giving the patient strength by building up the constitution and assisting nature in doing its work. The proprietors have so much faith in its curative powers that they offer One Hundred Dollars for any case that it fails to cure. Send for list of testimonials.

Address F. J. CHENEY & CO., Toledo, O.

Sold by all druggists, 75c.

Take Hall's Family Pills for constipation.

A POOR GUESS.

"It's easy enough to pick out the bankrupt," said the unsophisticated reporter at the credirors' meeting.

"Yes?" replied the other.

"Yes. See how shabby and careworn he looks."

"That's the principal creditor. The bankrupt is that man with the fur overcoat and diamonds."

Sacramento Valley California

Fine Climate, Rich Soil, Well Irrigated, Not Overcrowded

The range of production here is marvellous. Almost anything can be raised that is raised elsewhere. And there is

Room for More Workers

on irrigated lands. Read the book, "The Sacramento Valley," issued by the Southern Pacific and sent to any address for 2 cents postage; 112 pages, 111 fine half-tone illustrations. It shows you what the valley looks like and tells you of its resources. Write to

H. F. CARTER

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SOUTHERN PACIFIC

ONTARIO ARCHIVES TORONTO