FARIORISTINGUIG MERRITARIS

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Pole Later newards that a itreman seening promotion is examined more rigidity in regain to his anowined of the apparation of the continuous promotion is examined more rigidity in regain to his anowined of the apparation of the continuous promotion of the carmination on the carmine in marder to pass than on the engine itself for the ordinary fireman. It is absolutely necessary that each new engineer shall know all about the working of alternates and their effect upon short and long trains under all sorts of conditions, and until he gains this knewbedge there is no chance of his gotting his engine. "The introduction of the emergency brake is largely responsible for this state of affairs, for this invention, useful as it has been, is productive of mischief."

"In the early days of the airbrake when the "straight air's system was used the whole apparatus consisted of a main reservoir on the engine, with a single connection with all the brake cylinders back through the train. When the engineer wanted to apply the brakes he turned the handle of a three way cook in the cab, which allowed, the air pressure from the engine reservoir to rush back through the train, and the sir filled one brake cylinder after another, forcing the brake shoes against the wheels. This old system had many weak points. One of these was that in a long train the air pressure in the reservoir was not great snough to fill the cylinders throughout the train who mough pressure and gave a slow acting brake of low power.

"But the more vital defect was that if a train was running down hill, say, and a hose connection broke on any part of the train the engineer was helpless, and nothing would grevent a bad week except the best of luck or the prompt application of the hand brakes.

would prevent a bad wreck except the best of luck or the prompt application of the hand brakes.

"Then automatic brakes were introduced, which did away with both of these failings. In this system an air tank or reservoir is placed on each car alongside of each brake cylinder. This tank is filled with an air pressure from the engine and is controlled by a triple valve attached to the brake cylinder. This valve has three functions—it rolesses the air from the auxiliary reservoir on each car to the brake cylinder when applying the brakes, then allows the air to escape when the brake is to be released, and also opens a hole through which the air pressure from the engine can once more charge the auxiliary reservoir.

"Now with this system, when the engineer wants to put down the brakes, instead of turning on the air as a matter of fact he draw it off. The pressure in the reservoir of each car being, say, seventy pounds on one side of the sliding valve and an equal pressure being on the engine side, the valve remains stationary, but when the engineer atlows a certain amount of the air to escape, this action, weaksning the pressure on the engine side, causes the greater pressure in each car tank to force out each sliding valve, which as it moves exposes an entrance to each brake cylinder, and simultaneously the air rushes into each brake cylinder and causes the application of all the brakes. This device has done away with all danger of a train running away, for the moment a hose breaks the pressure on the engine side escapes and thus causes all the brakes to go down automatically.

"This brake has worked successfully in aimost every respect and the engineers have mastered its workings without much trouble. The came the emergency brake, which supplied the former remaining defect for productive and an entrance to emergency brake, which supplied the former remaining defect for productive and an entraneously the air rushes for the engineers have mastered its workings without much trouble.

astered its workings without much rouble, ten came the emergency brake, which sup-led the former remaining defect for produc-gan instantaneous and tremendous check, it with the emergency brake has come a tof complicated appartus that has to be oroughly understood, theoretically and

But with the emergency brake has come a lot of complicated appartus that has to be thoroughly understood, theoretically and practically, by the engineers.

"To put on the emergency brake the engineers it will go with one quick movement. This lot out every bit of pressure on the train line that is holding each valve in the car reservoirs. Finding no resistance the air from the car reservoir drives out the sliding valve as far as it will go, the great pressure forcing further than when an ordinary service application is made, and this discloses at once not only the whole of the entrance port to the brake cylinder but also another opening leading to the pressure from the engine. At the bottom of the second opening is what is known as the emergency valve, which, borne back by the pressure, allows added power to enter the brake cylinders from the train line in conjunction with the other pressure from the car reservoirs and produces a most powerful brake.

"Scinetimes the emergency device gets beyond control and causes a lot of trouble.

sure from the car reservoirs and produces a most powerful brake.

"Scmetimes the emergency device gets beyong control and causes a lot of trouble. If the sliding valve on a certain car of a train becomes cloged with dirt it won't respond to the engineer's reduction of say, five pounds pressure, and maybe even a ten pound reduction won't have any effect upon it. As a result the brakes on all the rest of the cars are partly down and not on that particular car. Then when the engineer makes still another reduction the high pressure from this one tank forces the valve suddenly back with a jam, causting the brakes to go to emergency not only

on that car, but on nevery car of the train, with the result that a train will come to an abrupt standetill maybe a couple of hundred feet from the station.

"That kind of a brake we call a "kicker, and there are times when the engineer of a passenger train has this thing happen to him a half dozen times during a single run. An emergency applied while a train of the run training at fifty or wing to the great momentum, but lost the train be running at ten or twelve miles an hour and there will be a shaking up that will break everything in the dining are and make everybody aboard uncomfortable.

"One odd thing about the application of a signal ground of the control of a signal control of a signal first has slowed down his train of a signal signal train has slowed down his train of a signal soft builting out his throttle and trying to regain his headway the wisest thing for him to do is to bring his train to a standed and then start afresh. The chances are very much in favor of the train being broken in two if the engineer under these circumstances tries to start up from slow speed. The brakes on account of the wind the brakes on account of the wind the brakes are still down. There was a case the other day where a heavy engine under these conditions setually pulled an empty flat car the accidents that a passenger train from Springfield to New York, when I saw the tail lights on the cipose of a freight train the greatest care must be taken, for if the brakes on the forward cars go down too quickly they wint come to a sudden stop, and the present care must be taken, for if the brakes on the forward cars go down too quickly they wint come to a sudden stop, and the present care must be taken, for if the brakes on the formard cars go down too quickly they wint come to a sudden stop, and the present care must be calcen, for if the brakes on the formard cars go down too quickly they wint come to a sudden stop, and the present care must be calcen, for if the brakes on the formard cars go down to a peasing freight train.

and hard and the cars had stopped with a jerk that jarred out every light.

"It is just an easy for the conductor to put down the brakes as the engineer, and he can either bring a train to a gradual stop or, by throwing back the lever all the way, cause an emergency application. The conductors on some of the roads, who are a little nervous, have been known to make use of this opportunity in more ways than one. One engineer on a New York road complains that he can never make up time when he has a certain conductor behind him. The latter is a scary sort of a dellow, and when the train gots late the engineer



Cure Your Horse with Kendali's Spavin Cure— the one reliable cure for all Bone Diseases, Swellings and Lameness. FAIR GROUND, Out., May 3 '06,

"Thave used Kendall's Spavin Cure with great success, and think it an excellent remedy for Spavins, Sweeney, Sprains WM. LINDSAY. etc. WM. LINDSAY.

Accept no substitute, \$r a bottle-6
for \$5. Write for free copy of our great
book—"Treatise on the Horse." Br. B. J. KENDALL CO., Enasburg Falls, Vermont, U.S.A.

turns loose his engine and tries to make up some of the time, sending the train along faster than the conductor cares to travel. The latter then goes to the emergency lever and makes a service application of the brakes by causing a small reduction of the air in the train line. Of course the train is held down to a cartain greed, no matter how wide down to a cortain speed, no matter how open the engineer pulls the throttle."

THE SECOND WIFE. When a widow or widower announces his or her intention of forming new ties it is often the cause of bitter resentment on the part of the relatives of the one who has died.

They are angry, aggrieved at the idea of anyone filling their loved one's place, and while one can sympathize with them in their affliction, yet it is not a right course to pursue, and can only bring sorrow and enmity in its train. Will not the dear dead one desire the

true happiness of the husband who has been left comfortless and alone, after having enjoyed the love and sympathy of happy married life?

Of course, he will mourn his loss, but

time is the great consoler, and by and by when the first bitterness of the blow has been assuaged, he will turn his thoughts in the direction of new ties, a wife. If his first marriage has been a success then the second is a compliment to his late wife's memory; if it was unhappily a failure, then can be be bleamed for

seeking a more congenial mate? It is the relatives who work the most of the mischief in these cases; they poison the minds of the children and so create an atmosphere of dislike and resentment ere ever the stepmother has entered upon her new duties.

And one thing, girls; some of you who

and one thing, girls; some of you who read the Welcome may even now be preparing to wed with someone who has previously "loved and lost." Try and bear in mind that it is petty and ignoble to be jealous of the dead; do not resent her name being mentioned to the little ones she has left behind. Bear in mind that her becare your going and a that her loss was your gain, and a charge of gravest importance has been placed in your keeping when a widower entrusts the care of his house and family

nto your hands.

Never mind interfering gossips or malicious tale-bearing. Try and win the children's love; be tactful with them, children's love; firm to punish where necessary, yet erring on the side of tolerance and love.

People will criticize your conduct, but if you set up an ideal standard and try to live up to it you have done the best in your power, and will have no regret whatever the issue.—Weekly Welcome.



Will restore gray hair to its natural color. Stops falling hair, causes to grow on baid hand, cures dendruff, itching and all scalp diseases. Contains no oily or greasy ingredients. Not a dy-Price 75 cents.—To introduce will mail first order for 30 cents, coin or postal note. Address THE MERWIN CO., Windsor, Ont.

Hour Glass for Pulpits.

The twenty minute sermon is a purely modern invention, as is proved by the number of pulpit hour glasses that are still to be found in many old churches. In the register of St. Catharine's, Alding the brakes to go to emergency not only on that car, but o nevery car of the train gate, the following entry, dated 1564, occurs: "Paid for an hour glass that hang-curs: "Paid for an hour glass that hang-curs: "Paid for an hour glass that hang-det from the station.

a place in the Communal Museum.

Minard's Liniment Cures Burns, etc.

STILL SUFFERING.

Daughter—She seems to have gotten over the death of her first husband? Father—Yes, but her second husband

TO TRY IT ON THE DOG.

Butcher Didn't Like Inference in Being Asked for Meat for Canine.

Until recently a groceryman in the neighborhood of Thirty-second and Chestnut streets has been in the habit of filling his customers' meat orders from a neighboring butcher shop. Lately he sub-let a portion of his store to a friend sub-let a portion of his store to a friend who is a butcher, and together they have filled the orders of Mr. B's. customers without assistance from the butchery across the way, the proprietor of which seems to have been somewhat piqued. A few days ago a customer sent her servant for 10 cents' worth of meat for

servant for 10 cents' worth of meat for the dog. A piece similar to the sort the lady was in the habit of purchasing was not in the shop, and Mr. Grocer stepped briskly across the street and asked for 10 cents' worth of dog meat.

The answer finshed back: "We don't keep dog meat."

Mr. Grocer (mildly)—I'll take ten cents' worth of meat for the dog."

Butcher (with knife poised provokingly)—Shali I wrap it up, or will you eat it here?"—Philadelphia Record.

THE RYRIE Sovereign Fountain Pen

> THIS "special" Fountain Pen is made of the finest grade of Para Rubber, and is fitted with a 14k, solid gold pen with Tridium tip, which assures a steady flow of ink.

COMPLETE with a safety clip which holds the pen securely in the pocket, the price is

IN larger sizes the Sovereign may be had for \$2.00.

Send for our Handsomely Illustrated Catalogue.

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The Decline of Bank Burglary. Previous to 1895 there was seldom

vear that the losses through bank burglaries did not amount to \$100,000, and in a number of years the losses amounted to several times that amount. The decline of professional bank burglary dates from 1895. In that year the American Bankers' Association formed a protective committee for the extermination of bank burglars, and a contract was entered into with one of the leading detective agencies in the country. In 1895 the banks of the country lost more than \$200,000 through burglaries. Of the 8,383 members last year, having an aggregate surplus, capital and de-posits of more than \$12,500,000,000, only four members suffered losses from bur-glaries, the total loss of these four mem-bers amounting to only \$4,217. These four burglaries were committed by yegg men, there not being a single professional bank burglary during the year. The extermination of these yeggmen is now the chief work of the protective com-mittee.—From the Van Norden Maga-

Minard's Liniment for sale everywhere.

The Czar's Children.

The children of the Czar of Russia are always dressed with extreme simplicity, says one who knows something about the mestic life of the Romanoffs. The litthe grand duchesses wear plain white cotton or cream serge dresses, with sail-or collars and plain black silk bows tied in an English navy knot. Their hats are shady white straws, trimmed with black ribbons and fastened on with elasties. Their shoes are of stout black lea-ther, with very soft uppers and sensible heels, and they wear black stockings of cashmere, with no openwork frippery. On Sundays and holidays a little more elaboration is permitted, but even then the little Romanoffs do not present nearly so fine an appearance as many American children. children.

. Junior Coiffure. For very young girls there is nothing prettier than the hair parted in the front and brought back over the ears to the nape of the neck, where it is braided, looped and tied with a broad ribbon. Fair hair always looks well so dressed, but dark hair will be equally pretty and girlish-looking if the front portion is tied on top of the head in a pompadour effect, then braided and looped and fastened with a ribbon, the other half of the hair to be braided in the nape of the neck and arranged as above. This looks neater than the wavy fluffiness at the sides of the face so picturesque-looking when the hair is fair

and neat effects are always best for dark hair.

Remaking the Glaciers.

them out.

The womething was wrong, and stopped to train in the quickest possible fashion, inking that some obstruction might have en forced over my track. A few moments a flagman who had been sent back. He did that the freight had broken in two, and ien the air loce between the parted cars of broken the brakes had gone down quick di hard and the cars had stopped with a rk that farred out every light.

Roman Art Find.

Roman Art Find.

A Roman villa has been discovered at lead to the spring of the present year forcibly illustrate the proverb of its being an ill wind that blows no good. For the past half century there has ty, and many objects of bronze, iron and lead. Six columns were intact with bases and capitals. Some pottery was also found. The smaller objects will find a place in the Communal Museum. heavy snowfall and storms in as to the dark prospect should tourists once turn their faces in other directions. The rigors of 1906-7 have changed all this. According to all the authorities they have left a deposit which will go far to rehabilitate the prestige of the electrons. glaciers.

> Nature has written a on some men's faces which is honored wherever presented .- Thackeray.

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in your spare time at home, or Take a Personal Course at School.

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To enable all to learn we teach on cash or instalment plan. We also teach a personal class at school once a month. Class commencing last Tuesday of each month. These lessons teaches how to cut, fit and put together any garment from the plainest hirt waist suit, to the most elaborate dress. The whole family can learn from one course. We have taught over seven thousand dress-making, and guarantee to give five hundred dollars to any one that cannot learn between the age of 14 and 40. You cannot learn dress-making as thorough as this course teaches if you work in shops for years. Beware of imitations as we employ no one outside the school. This is the only experienced Dress Cutting School in Canada and excelled by none in any other country. Write at once for particulars, as we have cut our rate one-third for a short time. Address:—

SANDERS DRESS-CUTTING SCHOOL,

SANDERS' DRESS-CUTTING SCHOOL, 31 Erie St., Stratford, Ont., Canada.

Vaccination Facts.

The statistics of the nurses, in smallpox hospitals, are very interesting. In the epidemic of 1871 there were 110 persons engaged in actual attendance on sons engaged in actual attendance on the smallpox sick in the Homerton Fever Hospital in England. All these, with two exceptions, were revaccinated before being allowed to begin their work, and all but these two who had evaded the regulation in the matter, escaped smallpox. In the same hospital five years later, all the revaccinated attendants escaped smallpox, while the only one who had not been revaccinated took smallpox and died from it. A committee was appointed to report on the question of the occurrence of smallpox among nurses in England. Of fifteen hundred persons in and died from it. A committee was appointed to report on the question of the occurrence of smallpox among nurses in England. Of fifteen hundred persons in practical attendance on cases of smallpox forty-three contracted smallpox, "and not one of these forty-three had been revereinted." Of 734 nurses and at evaccinated." Of 734 nurses and attendants in the Metropolitan Asylums Board Hospitals, in London, seventy-nine had had smallpox and did not take the disease. Six hundred and fifty-five were revaccinated on entrance, and all of them escaped infection. Ten were not revaccinated, and every one of them took smallpox.—New York Independent.

Famous Landmark to Disappear.

On an early date the noted East Lothian landmark known as Knock-in-Hair is to be pulled down. It was a signal station at the time of Napoleon's threatened invastion. The tower derived its name, says the London Globe, from the strange eircumstances that women used to congregate ground it, when watch-fires were kindled within its dome and as they witnessed the wreck of fishing boats containing their breadwin-ners they dashed their heads against its

Be Your Own Doctor If you suffer with Eczema or other Skin Diseases—Itching, Bleeding Files—if the Blood is out of order, atomach upset, bowels or kidneys civing you trouble—if you are getting pale and train and nervous—cure yourself at home with

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TRADE MARK REGISTERED. 20
REMEDIES. Mira Cintment is infallible for all skin troubles. Mira Tablets strengthen the nerves. Mira Blood Tonic purifies the blood and builds up the system. They are a wonderful trio that should be in every home. Ointment and Teb's, each 50c host; Tonic, \$1. Druggists or The Chemist's of Canada, Limited, Hamilton—Toroctin

CONUNDRUMS.

Why did the fire-fly? Because it saw the match-safe. Why did the lobster blush? Because why the salad dressing.
What happened to the hired girl who
put kerosene on the fire? She hasn't ben-

why would some snakes make good tory-tellers? Because they get off a rattling good thing in the shape of a

SEASORING TELEPHONE POLES. The Government and the Companies Are

Both Experimenting.

Both Experimenting.

The scarcity of timber suitable for Sciephone and telegraph poles has of late absumed serious\_proportions, says the Amselvan Telephone Journal.

Latest reports of the Census Office show that there were in operation in 1902 approximately 700,000 miles of pole line. Subsequent additions, however, together with certain railroad pole lines not reported, would enlarge this figure.

It is safe to assume that there are in operation at present fully 800,000 miles of line. The average line contains about forty poles a mile, so that there are approximately \$2,000,000 poles in use.

Assuming that the average life of a pole is twelve years, it follows that for the maintenance of the lines now in operation there are needed each year more than 2,550,000 poles. Such an enormous demand must soon deplete the available supply. This is fully recognized by the different companies.

The American Telephone and Telegraph Company, in co-operation with the Brited States Porestry Bursau, has been carrying on elaborate experiments to determine the best means of prolonging the life of poles.

These experiments show that seasoned timber in contact with the ground will autiast unseasoned, and that dry wood is more receptive for preservative fluids than green wood.

Experiment stations were established at Dover, N.J., Thorndale, Pa., Plazah, N.C.

wood,
Experiment stations were established at
Dover, N.J., Thorndale, Pa., Plsgah, N.C.,
and Wilmington, N. C. As a part of the
terms of co-operation the American Telephone and Telegraph Company supplied a
fixed number of poles each month.

ing you in advance I remain,
Yours truly, W. C. McCUEAN.
14 St. Paul street.
Care Oliver Typewriter Co.
P.S.—Kindly answer at once.

Are Cards Undermining the Church. Are Cards Undermining the Church.

A sensational attack on eard-playing was made at Winona Lake, Indiana, the other night by Mrs. A. B. Sims, of Des Moines, Ia., in the presence of four thousand people. Mrs. Sims is the woman's whist champion of the United States, but she has seen a new light, and has been a new light, and has been a favority recreation combut she has seen to held light and held burned believed her once favorite recreation completely. She stated that she had burned her forty packs of cards, because they had absorbed so much of her time and energy. Frequently she had played from 10 a. m. to 11 p. m. She also thought that excessive card-playing on the part of women was undermining the church.—From Leslie's Weekly.

Minard's Liniment Cures Dandruff.

A Remarkable Fountain, In the gardens attached to the Houses of Parliament, Melbourne, there is an elaborately sculptured fountain, embel-lished with human figures, birds, flowers and various other ornamental work in stone. This fountain has a remarkable history. It was constructed entirely by a convict named William Stanford, within the walls of the Melbourne jail. within the walls of the Melbourne jail. When a young man of twenty-one Stanford, in a weak moment, joined a band of bushranging desperadoes, was captured, and sentenced to terms of imprisonment amounting in the aggregate to twenty-two years. One day Colonel Champ, the Governor of Melbourne jail, was astonished to find a beautiful angelic figure which Stanford had carved out of a meat bone. He showed it to out of a meat bone. He showed it to the leading sculptor of Melbourne, who declared that the young convict was a natural genius. The sculptor visited the jail and gave Stanford some lessons in the art. A petition for pardon was inthe art. A petition for partion was influentially signed, and Stanford was released. He became one of the most successful sculptors in Melbourne, and completely lived down his juvenile criminal escapade.

Looking for a New Word.

"Papa, what does hades mean?"

18SUE NO. 41, 1907.

HELP WANTED-FEMALE,

W ANTED-LADIES TO DO PLAIN AND light sewing at home, whole or spare time; good pay; work sent any distance; charges paid; send stamp for full particulars. National Manufacturing C&, Montreal,

Dresden "Pedestrian Catchen"

Four years ago, says the Electrical Engineer, the City Council of Dresden offered prizes for the most effective form of "pedestrian catcher," a device to pre-vent accidents from swiftly moving tremcars in crowded streets. specimens have been tested, and one of them, invented by a Dreaden merchant, has received the first prize. It is easily attached to cars, does not get out of order, and picks up and carries along life-size leather mannikins, living dogs, and even bottles filled with liquid.

Mange, Prairie Scratches and every form of contagious Itch on human or anims cured in 30 minutes by Wolford's Sanitary Lotion. It never fails. Sold by druggists.

Added to His Prayer.

Old Dr. Ryland, clergyman and edu-cator, was greatly beloved in the South, and his visits were always enjoyed by his former pupils and parishioners. In his and his visits were aways capen. In his later years it was his custom to offer prayer whenever he made a ministerial call. On one occasion he called at a house where three of his former pupils were staying. These ladies were all past house where three of his former pupils were staying. These ladies were all past the thirtieth year mark, but in the eyes of the old gentleman they were still girls —which explained the petition he offer-

"Lord, bless these dear girls, just budding into sweet womanhood."

This was too much for one of the number, who, taking advantage of the doctor's deafness, added this clause, sotto voce: "Alas, Lord, budded, bloomed, faded and still unpicked!"

Stops —and all stemach and bowel disorders.

Makes puny babies plump and rosy. Proved by 50 years' successful use. Ask: your druggist for it— Nurses' and Mothers' Treasure -25e -- 6 bottler \$1.25. Vational Drug & Chemical Co., Limited Montreal,

Esperanto in Schools, The Southport, England, Education Committee have decided to form classes for the study of Esperanto, subject to the usual condition regarding the num-ber of students. For the purposes of fees and salary to a teacher the classes will come under the heading of "general and literary."

BETTER THAN SPANKING.

Spanking does not cure children of bed-wetting. There is a constitutional cause for this troublue. Mrs. M. Summers, Box W. 6, Windson, Ont., will send free to any mother her successful home treatment, with full in-structions. Send no money but write her to-day if your children trouble you in this way. Don't blame the child, the chances are it can't help it. This treatment also cures adults and aged people troubled with urine-difficulties by day or night.

One Result of the Strike. (New Haven Register.)

One result of the strike may work One result of the strike may work permanent harm to the telegraphers. By the stringency of the occasion, the companies and the managers were forced to an exhaustive test of automatic telegraphy, and have found it to prove surprisingly efficient. They will not forget this, but will through this test, it may be, be led to install the machine and dipplace the man faster than they might otherwise have done.

People who lay their sins on the old Adam are successes attributed to him.

