

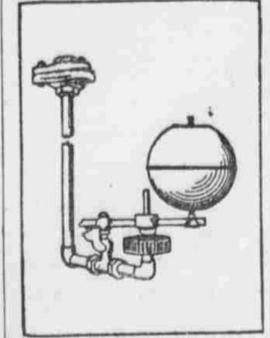
# INDUSTRY AND MECHANICS



## USEFUL IN DRAINING CELLAR

Ball Floats, Opens Spigot and Water is Sucked Up—Handy in Places Where Water Collects.

An ingenious apparatus for draining cellars, cesspools, foundations, wheel pits, furnace pits and all the numerous places where an excess of water is apt to collect, has been invented by a Maryland man. Running



Useful Cellar Drainer.

down from the water pipe of the building to the lowest point of the place to be drained is a pipe that makes two rectangular turns, and continues up to a point above ground, where it empties into a trough, or another pipe, that connects with sewer or gutter. In the center of the small horizontal portion of the pipe is a spigot, the opening and closing of which is operated automatically by a ball, on the other end of which is a large ball. The weight of the ball raises the end of the bar attached to the spigot, and keeps the latter closed until the water in the cesspool or pit is high enough to float the ball. This opens the spigot and the water flows through the pipe and seeks its level, carrying up with it by suction the waste water in the cellar.

## RAISING OF WILLOW SHOOTS

Immensely Profitable When Handled Properly—European Varieties Have Many Advantages.

The raising of willow shoots for the manufacture of basket goods is an enormous industry in Europe. There are ninety different varieties of willow cultivated abroad, and the majority of them have decided advantages over the product of willow farms in this country. The culture of willow shoots requires so much special knowledge and such care in the selection of stock that it will doubtless be many years before the American grower can hope to grow basket material which will in every way satisfy the manufacturer.

A recent report, however, tells of one farmer in the middle west who cleared \$10,000 on a 60-acre crop, and certain willow planters in the east and south who, after making patient tests of various species, have succeeded in growing excellent shoots.

For basket making a willow shoot must be slender, tough, pliable, and cylindrical. In this country no two soils will grow the same quality of willow. Every planter has of necessity to experiment for his own locality and select the species best adapted to his soil and climate. Importations of the best white willow shoots from Europe will often degenerate in an American soil until they are mere worthless, brittle twigs. In the east the willow has to be combated, and in various climates various species are immune to the disease.

This whole culture is in its infancy here, but when properly handled willow planting is immensely profitable, and the industry in this country is so enormous that it will mean a great saving to American manufacturers when they are able to buy their materials from domestic growers.

## Cocoon Oil Butter.

The recent discovery of practical methods of converting crude cocoon oil into a palatable and satisfactory vegetable butter has given great extension to this business in Germany. Seven companies are now crushing the copra and refining the oil for edible use. The importations of raw copra have more than doubled within three years.

## INDUSTRIAL AND MECHANICAL NOTES

If a metal pole is unprotected when placed in the ground it will rust seriously in about ten years.

Much of the "cross-grained" appearing in up-to-date furniture is the wood of the red gum tree.

The first aeroplane engine in which it is possible to regulate the speed has been invented in England.

A flagstaff made in several sections that telescope for convenience in handling has been patented.

To designate the handling of a piece of work by machinery the word "mechanipulate" has been coined.

The various German states maintain 70 schools in horseshoeing, with courses of from one to six months.

Hacked by a \$50,000 endowment fund, the University of Leeds, England, has established a chair of coal, gas and fuel industries.

Oxygen tanks liberating gas into a bag in which a man's head and shoulders can be placed, feature a new rescue litter intended primarily for mines.

To draw an operator's hand out of the way of a descending die in a stamping machine is the purpose of a series of levers invented by a Maryland man.

An interesting and apparently successful experiment has been made in Thessaly in the cultivation of Egyptian cotton, with modern machinery and under direction of an expert from

# Timely Suggestions of Interest to the Hostess

### Shakespeare Valentine Contest.

The contest following may be used at any time, but is especially good as a part of a valentine entertainment. The answers to the questions are all the names of plays from the great bard of Avon. Make the program in shape of hearts and attach pink pencils by silken cords. The prizes may be one of the numerous small books consisting of a complete Shakespeare play, a print of his home, the Anne Hathaway cottage, or the hostess may use valentine favors from which there is such a great variety to make a selection.

1. Who were the hero and heroine?
2. What mythological characters did they resemble?
3. What did their courtship resemble?
4. Of whom did he buy the ring?
5. What did he write to her?
6. When were they married?
7. Who acted as best man and maid of honor?
8. Who were the ushers?
9. What black man tended the door at the wedding?
10. What ladies gave them a reception?
11. What three kings (relatives) attended?
12. Where did they make their home?
13. What kindly thing did he do that caused their first quarrel?
14. What did he afterwards say about it?
15. What did he temper resemble?
16. What did he consider his duty after marriage?
17. What did he tell his servant to do?
18. What did she give him?
19. What did their marriage prove to be?
20. What was their daily life like?
21. What man with a Roman name caused them to forget their family troubles?
22. What would you say of their marriage in the end?

Answers: 1. Romeo and Juliet. 2. Venus and Adonis. 3. A Midsummer Night's Dream. 4. The Merchant of Venice. 5. Sonnets. 6. Twelfth Night. 7. Antony and Cleopatra. 8. Two Gentlemen of Verona. 9. Othello. 10. The Merry Wives of Windsor. 11. King Henry IV. 12. Hamlet. 13. King Lear. 14. Much Ado About Nothing. 15. The Tempest. 16. The Taming of the Shrew. 17. Julius Caesar. 18. Measure for Measure. 19. A Comedy of Errors. 20. Love's Labor Lost. 21. Titus Andronicus. 22. All's Well That Ends Well.

### Valentine Cookies.

"Polly" is always my inspiration and furnishes many a valuable idea for the department. She is full of romance and believes heartily in putting a halo of glory around every special day as well as common days, which I assure you are often very uncommon days when she is about. This year, instead of sending valentine favors to the institutions for children, she is having made lovely knobby sugary cookies in heart shape, each wrapped in waxed paper

sealed with a heart sticker. They are to be served with dessert, and won't those children be delighted? "Polly's" order is for 800 cookies. I just hope this suggestion will be in time for many others to follow her example.

### Pretty Engagement Place Cards.

At a luncheon to be given near Valentine's day to announce an engagement, the place cards are to be heart-shaped picture frames containing a picture of the bride-elect. At her place the frame will contain the picture of the happy man. It is in this way the news will be made known. The centerpiece is to be a huge true lover's knot of blue ribbon with a crystal vase of pink roses. Heart-shaped wreaths of pink carnations are to be round each service plate. The combining of two flowers is quite a feature this season.

### A Valentine Toast.

The correspondent who asks for a toast to be given at a college banquet on the 14th will find this acceptable, I am sure:

She may be here, she may be there; She may be dark, she may be fair; Perhaps she's large, perhaps she's small; Perhaps she's low, perhaps she's tall; But till the sun forgets to flame Each heart shall pledge her changed name: As pure as gold, as fine as myrrh, As dear as heaven—here's to her.—Arthur Gutterman. MADAME MERRI.

### New Wall Paper.

The principal beauty of the new papers lies in the lovely colors. Some of the prettiest are almost plain, but not quite so. The absolutely plain papers have not the depth of color and variety that we find in those with a slight figure of some kind, even if it is only a line. The hair-line stripes are still with us, but they have improved these by breaking the stripes with tiny self-toned figures. There is one lovely gray paper, a hair-line broken here and there with a little gray rose. A beautiful lavender paper also has a hair-line background, but it is broken up into diamonds. The charm lies in the beautiful color.—Harper's Bazar.

### Newest Tea Cosies.

Quite the newest tea cosies are fascinating creations made of white linen heavily embroidered in an open pattern to show off a silk lining of a gay color. That the cosy may fit over any sized teapot, even the most capacious, it has end pieces let in, and these are of plain linen, unadorned like the rest, so that here the colored lining does not show through. The seams of the cosy are covered by a handsome white cord, artistically knotted here and there to give a pretty effect.

### Beneficence and Gratitude.

One day the Supreme Being took it into His head to give a great banquet in His Azure palace.

All the virtues were invited. Men He did not ask—only ladies.

There was a large number of them, great and small. The lesser virtues were more agreeable and genial than the great ones; but they all appeared to be in good humor and chatted amiably together.

But the Supreme Being noticed two charming ladies who seemed to be totally unacquainted.

The Host gave one of the ladies His arm, and led her up to the other.

"Friend—once!" he said, indicating the first.

"Gratitude!" He added, indicating the second.

Both the virtues were amazed beyond expression. Ever since the world had stood—and it has been standing a long time—this was the first time they had a "Polem in Prose" from the Russian.

It's an attached cuff that has no turning.

# New News of Yesterday

by E. J. Edwards

## Beecher and the Phrenologist

### How a Strolling Bump-Reader Examined the Great Pulpit Orator's Head and Told the Truth His Abilities.

While Henry Ward Beecher was all his life in most vigorous health, both mental and physical, never suffering serious illness until the mortal attack, he was nevertheless a worthy victim of hay fever. He found his only relief from hay fever in a sojourn in the White Mountains, and he was accustomed to leave his farm, near Peekskill, N. Y., in mid-July and to remain in New Hampshire until the frost. He was utterly democratic in his manner and unconventional in his dress, so that anyone who did not know him would be likely to judge that he was a farmer who had saved a little money and was spending a portion of it in a summer vacation at a White Mountain hotel. Many farmers at that time were accustomed to do this.

One summer morning in the late seventies Beecher sat upon the piazza of his hotel, reading a newspaper. Upon his head was his black felt hat, the brim of which was so broad that it flapped in the breeze. He wore an old-fashioned turn-down collar, with a sort of black string for a necktie. His trousers were baggy, as usual. A few of his friends sat near him, chatting, when suddenly there appeared around the corner of the piazza a quaint and curious specimen of humanity. He was a large-eyed, long-haired man, with the beard of a prophet. In one hand he carried a satchel and in the other what appeared to be a chart or a map rolled up.

"I'm a phrenologist," he said by way of introduction to the little group that sat opposite Beecher. "I can tell by feeling what kind of brain a man has."

"Well," spoke up one of the party, assuming a cautious manner and almost whispering, "I'll give you a dollar if you'll examine the bumps on that old farmer's head"—motioning toward Beecher—"and if we find that you hit it pretty nearly straight, why, then, some of us may have our heads examined."

The phrenologist approached Mr. Beecher. "The gentlemen want me to examine your head," he explained. "I am a phrenologist. I can tell you more than you know about yourself."

Beecher at once suspecting that his friends were intent upon playing a joke, solemnly took off his hat. The phrenologist began to fumble through the masses of silver-gray hair. Suddenly he stopped and stepped back in astonishment.

## Aristocrat and the Ex-Slave

### Peculiar Intimacy That Existed Between Blanche K. Bruce and L. Q. C. Lamar From the Time That Both Were Elected Senators.

In 1876 Blanche K. Bruce, born in slavery, and the first negro to sit in the United States senate, was made a member of that body by the Mississippi legislature. Two years later that state named as its other senatorial representative L. Q. C. Lamar, who had drafted the ordinance of secession adopted by Mississippi, led his regiment at Yorktown and Williamsburg, and otherwise labored assiduously in behalf of the Confederacy. In color, in antecedents, in training, in politics, the ex-slave and the man who was destined to win a seat on the United States Supreme court, were as far apart as the poles; yet shortly after Mr. Lamar had become senator it was noticed with more or less astonishment in various quarters that he and the senior senator from Mississippi were on the most friendly terms.

There are old residents in Washington who doubtless can easily recall how Senator Lamar and Senator Bruce used to walk arm in arm about the residential streets of the capital city and through its parks and squares. Seemingly, it never occurred to the white man that the companion of his outings was of another race, that his early life had been spent in bondage. And when Senator Bruce retired from the senate and became registrar of the treasury in 1881, the intimacy between him and Senator Lamar continued, their walks about Washington being ample outward evidence of their friendship.

Together, during all the period that both men were in the senate, they would visit the postoffice department

relative to appointments. Whenever it became necessary for him to go to the department, Senator Lamar would courteously ask his negro colleague to accompany him, and more than once they were seen making their way there arm in arm, as though they were old cronies. And it was noticed that the advances invariably came from Senator Lamar; that Senator Bruce did not presume upon the official relations that existed between him and Senator Lamar to force his personal attentions upon the latter.

At the beginning of Grover Cleveland's first term as president Senator Lamar became secretary of the interior. Not long thereafter he sent word to Senator Bruce, then getting ready to retire as registrar of the treasury, that he would like to see him. "A little later the secretary was receiving the registrar as he would an old friend, and confessing to him that he doubted whether he was as well equipped for an executive office as he was for a judicial or legislative post."

"But," he said, "I am going to make as good a secretary of the interior as I am able." Then he brought up a personal matter.

"Senator," he asked, "how many appointments of yours are there in this department?"

"Well," replied Bruce, "I can't tell off-hand, but possibly there is a larger number here than I should have asked for."

"Do you think so, Senator?" queried Secretary Lamar. "Well, I have sent for you simply to say this: Not one of your appointees in this department shall be touched. You can tell them all that they need feel no anxiety; they shall stay here as long as I am secretary of the interior."

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## Saw Treatment in a Dream

### Dr. M. O. Terry While Asleep Received Instructions That Developed into His Oil Cure of Many Kinds of Enteric Diseases.

A well-known encyclopedic authority states that the name of James Marion Sims "deserves a place as an inventive genius among the great surgeons of the world." It was Sims who, about the middle of the last century, substituted silver wire for silk and other sutures, first making his daring experiment in a peculiar and hitherto incurable disease, and then extending the use of metallic sutures to general surgery.

For some time he had been making a study of the hitherto incurable malady. He knew that the common silk suture would be eaten away by acids before the wound made by an operation could heal; it was this fact that made the disease incurable. He was puzzled over this apparently insurmountable obstacle one day when he was walking about the streets of Montgomery, Ala., where he made his great experiment, when he saw a hairpin lying upon the sidewalk. Instantly, an idea flashed into his mind. He picked up the hairpin, took it to a silversmith, and asked the latter if he could draw a silver dollar into a wire much finer than the hairpin. When informed that this could be done,

it was a curious experience, verging on the weird, almost, that first led to the study of medical sufficiency of oil in the treatment of many kinds of enteric diseases, especially appendicitis, said Dr. Terry.

"I was very fond of olives—and am yet—and it was my custom after a day spent in the hospitals and in following my private practice, to eat a handful of olives, with a few crackers on the side, before going to bed. Frequently, I was careless and left the bottle of olives uncorked, so that when I went again to it I usually found the contents incrustated with a sort of scum, and the olives themselves turned sour."

"Well, one night, after a hard day's work, including two very difficult operations, I fell into a sound sleep. And a dream came to me. It was as vivid as though I were awake. And in it I was told that, after opening a bottle of olives, I would pour upon the water in which the olives were packed in the bottle enough oil completely to cover the water, I would have no further difficulty about my olives souring."

"Furthermore, I was told the philosophy of this. 'If you pour oil into the bottle,' it was said to me in the dream, 'it will float upon the top of the water, it will make an absolutely impervious coating. No germs from the air can penetrate it. It will smother all germs, for that is the quality of oil. Therefore, your olives will be protected.'

"I awoke, and reached out to my night table, which always stood by my bed, and made a brief note in my note book. Then I went to sleep again.

"In the morning I discovered the note upon my table, and I said: 'To-night I will make the experiment.' I did so, and found that what had been said to me in the dream was true. The olives were perfectly protected from all germs."

"Now, that set me thinking. I reasoned that if oil were taken into digestive organs, it would thoroughly insulate them—prevent attacks upon them by bacteria; or, if attack had been made, it would smother the forces of illness. I soon had an opportunity to make a test of my newly formed theory, in the case of a child who was dangerously ill, and, to my gratification, I found it worked perfectly. Then I developed the theory to extend it to typhoid fever, and especially to appendicitis; and it is through my advocacy of the oil treatment in the cases of appendicitis that have not yet reached the acute stage, with pus formed—that the knife is the only remedy—that I have gained professional advocates and opponents pretty much over the civilized world."

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## Tried to Kiss Ada Rehan

### General Boulanger Receives Rough Treatment When He Attempts to Embrace Actress.

There was an episode in the life of Miss Ada Rehan that did not need the embellishments of the press agent to make it "go the rounds." In 1881 there was a celebration of the surrender at Yorktown, and a number of Frenchmen of state attended, including General Boulanger. Included in the program of which was assigned by Mr. Blaine, then secretary of state, to Mr. Crighton Webb, was a visit to Daly's theatre. The French party was delighted with the play, and especially with Miss Rehan. When the Frenchmen were told that Mr. Daly would be pleased to take them on the stage between acts and introduce them to members of the company, Boulanger manifested an excited enthusiasm at the prospect.

When Boulanger was introduced to Miss Rehan he soon dropped formalities. His attentions were conspicuously demonstrative. He seized her hand, drew her to him and attempted to embrace her. The fiery Rehan, thoroughly indignant, had difficulty in making the Frenchman believe that she resented his fervor, but some of the members of Daly's company managed to convince him by laying violent hands on him. Then, in turn, the exultant Boulanger became furious, demanded apologies of Rehan's defenders, and poor Webb, being responsible for the party and its good behavior, needed all the tact for which he was famous to prevent bloody hostilities.

When Boulanger was told that decorum in Daly's theater was the same as in any well regulated family, and, therefore, especially at variance with the standards of some of the Paris stages, he sent rather reluctant apologies to Miss Rehan and left the theater.

It's an attached cuff that has no turning.

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## For the Little Ones



The first of these attractive dresses, at the left, is of old rose velvet, and is suitable for little girls from five to ten years old. This may be described as a pinafore shape and is worn over a dainty guimpe of white wash silk. It is ornamented with a white and an embroidered motif, which is all the trimming there is on this model.

The pretty plaid dress in the middle is of navy blue herring-bone serge ornamented with crochet buttons to match and belted in with a red patent

leather belt. It is finished at the neck with a white Dutch collar stitched with red and bordered with guipure. The cravat is of red satin. This dress is for girls from six to thirteen years old.

The third dress, for girls of about the same age, is of serge and also plaid and ornamented with buttons. It is pretty in brown powder blue or dark wine red, and is finished with linen collar and cuffs trimmed with guipure. The cravat is of satin, but the belt is of the material.

## LANCHES OF FASHION

Party slippers are decorated with rosettes, buckles, bows and butterflies.

Oriental embroideries display motifs emphasized by beads of gold or silver.

As though trying to get to the other extreme, the newest veillings show fine dots, fine threads and fine meshes. There is no better style for morning working dress than the one-piece Russian, buttoning down one side of the front.

Cloth topped shoes are procurable in plain colors, gray, tan and dull green, while tiny checks or shadow plaids are much in evidence among smartly dressed women.

Brooches, belt buckles and long neck chains for lorgnettes or watch are about all that is really necessary.

New scarfs already planned to replace fur stoles are of soft, thin velvet-lined with old cashmere silk; about the neck the edge turns over a little to show the lining.

Saving Silk Petticoats.

A girl who knows says that she keeps her tulle-silk petticoats from splitting by hanging them upside down. Put two ribbon loops on the wrong side at the top of the wide ruffle, and hang the petticoat up by them. When it is possible, buy or make two silk petticoats at a time. By wearing them alternately, they will last far more than twice as long as one constantly worn.—Harper's Bazar.

Cleansing Lotion.

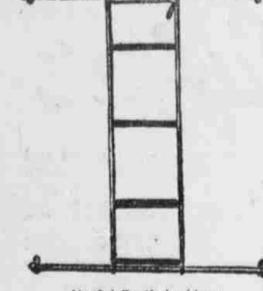
A simple cleansing lotion for an oily skin is made from one-half pint of rose water, one-half pint orange flower water, one-half ounce of benzoin, a little tincture of myrrh and a few drops of glycerin. Any drugist can prepare this with the right proportions.

## BERTH LADDER VERY USEFUL

Adequately Meets Demand of Steamboat Passengers—Made of Steel and Carry 500 Pounds.

These ladders are constructed of steel and will carry 500 pounds weight. They are carried on parallel steel rods, which are attached to the upper and lower berth and can be moved along these rods with perfect ease by releasing the thumb spring. The top and bottom of the ladders, where the rods run through, are inlaid with fibre to prevent any noise by the vibration of the boat, and cannot be moved until the spring is released. The rods are fitted with hangers, which are attached to the berth. One of these hangers of each ladder is so constructed that it can be turned back and allow the top rod to be released at one end and thereby remove the ladder without removing the two rods or hangers from the berth. The ladder rods and hangers are nickel plated, and the steps are covered with plush.

The ladder should always be at the foot of the berth until moved along



Useful Berth Ladders.

the rods, if desired, by the person using it, and after getting into the berth moved back so as not to interfere with the passenger in the lower berth.

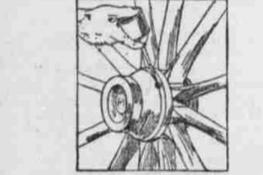
They are also a great convenience to maids making up the upper berth, doing away with the necessity of carrying around a stool or standing on the lower berth for support.

The device is a great convenience to passengers, and passenger boats of today are not fully equipped without it.

## HUB MADE SELF-LUBRICATING

Does Away With Old Method of Raising Vehicle on Jack and Applying Grease on Each Wheel.

A device by means of which oil may replace grease in the lubrication of wagon and carriage wheels has been brought out by a Seattle concern in the form of a self-lubricating hub, says the Popular Mechanic. The wheel box has the exterior appearance of the usual type, but on the inner surface, in the middle of the wheel, is a groove or channel, in



Self-Lubricating Hub.

which wool packing is placed. This channel provides a reservoir for ordinary machine oil and distributes it to the bearing surface as required. A small oil hole runs from the outside of the hub to the inside, through which common machine oil is supplied by means of an ordinary oil can. A small groove around the inside of the box, near the inner end, is fitted with a felt ring, which prevents the entrance of dirt and grit.

The ordinary method of raising the vehicle on a jack, one wheel at a time, removing the wheel, applying the grease and replacing the wheel, all of which takes considerable time and patience, is made unnecessary by this invention.

## Granite Belt of South.

When one speaks of granite the mind naturally reverts to Vermont. It is difficult to associate granite with any section of North America outside New England, yet it must now be acknowledged to the credit of the south that Georgia, North Carolina, Maryland, and Virginia are producing large quantities of stone of good quality which insures the south a place in the market at any rate. The annual output is now worth about \$3,500,000 and the industry is growing. It may be of comparative interest to know that New England's output is about \$9,000,000 worth of stone annually.

Horn Horseshoes.

A new horseshoe has lately been experimented with at Lyons in France. The shoe is made entirely of sheep's horn and is found particularly adapted to horses employed in towns and known not to have a steady foot on the pavement.

The results of these experiments have proved satisfactory, inasmuch as the horses thus shod have been driven at a rapid pace over the roadways without slipping. Besides this advantage, the new shoe is said to be durable, and, though a little more expensive than the old variety, seems destined sooner or later to replace the iron shoe in France, particularly in the cases of horses employed in the towns.

## Steel Production.

The steel production of the United States during 1899 was nearly 10,750,000 tons. This is about 6,000,000 tons in excess of Great Britain's total.