Household Matters

Bedclothes Fasteners.

Bedclothes fasteners are a necessity with little children, who are apt to catch cold from their restlessness at night. Clips to hold the coverings over them are now made, and are said to answer their purpose perfectly.

Paring Fruit.

In paring fruit for preserving, use silver-plated knives, and drop each piece as soon as pared into a bowl of cold water, which has been made acid by the addition of lemon juice; it prevents the fruit from turning dark.

Bruised Wall Paper.

Wall paper that has become bruised or torn off in small patches may be repaired with ordinary children's paints. Mix the colors till you get as nearly as possible the desired shade, and lightly touch up the broken places, and at the distance of a foot or two the disfigurement will be quite unnoticed.

Cleaning Metal Handles.

The metal handles of furniture frequently become so tarnished that it is impossible to restore their polish permanently by rubbing or ordinary means. This may be done, however, by painting them with the gilt, bronze or silver paints that are used in decorating, and which may be purchased at any art shop.

For Old Kid Gloves.

Black kid gloves generally wear out at the finger tips, and then assume a rusty brown tint, which is anything but pleasing, although the other part of the glove may be perfectly good. When this happens take a little black ink, mix it with a small quantity of olive oil, and apply it to the finger tips. Leave it until dry, and the gloves will be very much improved in appearance.

Burning Old Paper.

There are times when we all have bundles of old papers which have to be burned, and this is dangerous in a firegrate. The following is the method which will avert danger of the chimney catching fire: Make a tight roll of all the papers and fasten them with some pieces of wire. They will then form a kind of a log, and burn slowly without flames. The roll may be made any size and several burned together.

Sand Tarts—Beat separately the yolks and whites of four eggs, then fold together and add one cup of butter, one and one-half cupfuls of sugar, two tablespoonfuls of water, one-half teaspoonful of baking powder, mix in flour sufficient to make stiff enough to roll. Roll out thin, cut in shapes, sprinkle with sugar and cinnamon and bake in a moderate oven.

Boston Scallops—Break into bits a half dozen raised biscuits, and allow them to soak for a few moments in a cupful of sweet milk. Then add one cupful of grated cheese, two tablespoonfuls of melted butter, a little salt and pepper; mix well, put into buttered scallop dishes and bake slowly for twenty minutes.

Oyster Soup (Farmer's Recipe)—Clean one quart of oysters, chop and then parboil, drain and add to liquor enough water to make one quart of liquid. Brown three tablespoonfuls of butter with three tablespoonfuls of flour, add oyster liquor and cook slowly for one-half hour. Season with salt and paprika and celery salt. Just before serving add one cup of cream; two tablespoonfuls of chopped parsley may be added if desired.

Cream Spaghetti—Cook one-third of a pound of spaghetti in salted water until very tender, then drain and place in a baking dish; cover with a dressing made of one tablespoonful of flour, a saltspoonful of salt, and half as much pepper; stir this until smooth, and then add very slowly two cupfuls of hot milk. Cover with bits of butter and cracker crumbs and set in the oven to brown.

Tapioca Consomme—Boil three tablespoonfuls of minced onion and two tablespoonfuls of minced celery together for an hour and a half; then strain the water and add to it five tablespoonfuls of pearl tapioca, and cook for another hour; then pour in one quart of milk, a dessertspoonful of salt and a generous sprinkling of pepper. Beat three spoonfuls of butter with two of flour, and stir into the soup. Allow it to cook for twenty minutes, then serve.

English Batter Pudding—A light and feathery batter pudding is made with a quart of milk, twelve tablespoonfuls of flour, nine eggs and a teaspoonful of salt. Beat the yolks of the eggs with the flour and a little of the milk to make a smooth batter. Then add the remainder of the milk, slowly, to avoid lumps, stirring it continually. Fold in the stiff whites of the eggs. Butter a jean pudding cloth thoroughly. Dredge it with flour, put in the pudding and tie it up loosely, leaving plenty of room for the pudding to swell. Plunge it into boiling water, and let it boil steadily for two hours. If preferred it can be boiled in a tin pudding mould. The water must not stop boiling once, or the pudding will be heavy. A good sauce is made of two scant cups of sugar and a half cup of butter beaten to a cream, with a large cup of crushed strawberries added to it.

Smokestacks are often much overworked in manufacturing plants.

THREE SAMURAI.

A Romantic Story of the Old and New Japan.

AFTER Admiral Togo, the officer who achieved highest naval distinction in the war with Russia, was Admiral Kamimura, and bracketed with them both is the name of Admiral Baron Yamamoto. Kamimura commanded the armored cruiser squadron from first to last. He commanded it in the action with the Vladivostok squadron on August 10, 1901, when the Rurik was sunk and the Rossia and the Gromoboi were driven back to port so shattered that they never again emerged to take a place in the fighting line. He commanded it in the Battle of the Sea of Japan, when it maneuvred sometimes in company with the battleship squadron and sometimes independently. Yamamoto has presided over the Naval Department during the whole life of the present Cabinet. On him devolved the duty of getting ready for the war and the duty of keeping the ships prepared and equipped throughout the war. If a well-informed Japanese were asked to choose between Togo and Kamimura as naval captains he might hesitate, but no well-informed Japanese, were he asked to indicate the three men to whom primarily Japan owes the glory of her naval victories, would hesitate for a moment to name Togo, Kamimura and Yamamoto.

There is a curious bond of fellowship between these three men. It dates from a period over thirty years ago, when they were fellow-cadets at the Naval College in Tokio. Saigo Takamori had chosen them from among the Satsuma clansmen and had sent them up to the capital to study the science of maritime warfare. Saigo died when the greatness of his country was still only a dream of the men who shaped her modern career. He perished by his own hand, a defeated insurgent. Yet the leading members of the Government against which he had rebelled erected a statue to his memory in the principal park of the metropolis, and his sovereign conferred on him the highest posthumous honors, so profoundly was he respected, so sincerely loved. The ultimate point of difference between him and the patriots whom he led to the overthrow of imperial administration was that he regarded the preservation of the samurai class as essential to Japan's security.

The samurai, in Saigo's eyes, seemed incomparable soldiers, the blood of generations of warriors running in their veins, the traditions of a thousand years inspiring their creed of patriotism and loyalty. This band of hereditary warriors he would have preserved amid the wreck or the nation's old institutions. But a gift of foresight wonderful in other directions erred here. His fellow-workers, wiser in their statecraft, saw that in the future then opening before the country her sons must all be armed, not merely a limited section of them. It was an irreconcilable divergence of views, and it made itself felt indirectly though powerfully in foreign politics, for when a plausible pretext offered for attacking Korea Saigo would have seized the occasion, hoping that the immediate use thus created for the samurai might revive their moribund title to continued existence, where as his colleagues in the Government held that the Empire must not engage in any oversea wars pending wholesale reorganization.

Rumors of these dissensions reached the three cadets in the Naval College. They appreciated that Saigo was drifting into a position which might mean civil war, and being the sons of samurai they understood that they must obey the samurai's canon, either to share their patron's fate or by their own deaths to admonish him of his unwisdom. The question then arose how to reach Saigo. He was in Kagoshima; they were in Tokio. Hundreds of miles separated the two places, and, moreover, there could be no prospect of obtaining official leave to undertake the journey. Only one plan offered, and they adopted it. Absconding from the Naval College at night, they made their way to Osaka. This was in 1875. At Osaka they found their funds completely exhausted. Anticipating that difficulty, they had determined to seek aid from Godai Tomoatsu, a wealthy merchant of Osaka, who, having been himself a samurai and being also of the Satsuma extraction, would sympathize with them. But Godai refused peremptorily to lend any assistance. He dismissed the lads curtly, scarcely seeming to pay any attention to their story.

Thus they found themselves in a serious dilemma, unable either to prosecute their journey or to retrace their steps. That evening, seated in their room at a Japanese inn, they were despairingly debating some expedient when suddenly the paper sliding door was partly drawn back to admit a man's hand, which threw a packet on the matted floor and disappeared. They opened the packet and found it filled with bank notes. This was Godai's method of furthering their aim without seeming to approve it. There were no railways in those days, and coastwise steamers were few and far between. But they fortunately obtained passage on a little vessel, the Hozui Maru, which carried them direct to Kagoshima. In an outer room of Saigo's house they found Hemmi—one of his celebrated lieutenants, who afterward died at his side—in close consultation with six or seven Satsuma samurai. He heard their story, repeated it to Saigo, and then, without any comment, introduced the youths to the latter's presence.

Almost before greetings had been exchanged Saigo began to reprimand them in strong and bitter terms. "I selected you," he said, "because I believed you to be promising students, and I sent you to the Naval College, not with any selfish purpose of mine nor yet for your own sakes, but because the day will inevitably come when Japan must measure her strength with Russia, and it is incumbent on every true Japanese to prepare vigorously for that crisis. In the Naval College you had only one duty to perform—the duty of applying yourselves earnestly to your tasks and equipping yourselves to serve your country in her time of need. You have absconded from the college in obedience to your own imaginings, thus betraying the trust I reposed in you and forgetting a pupil's first obligation, obedience to his teachers. Return at once, and henceforward, whatever happen, though 'hills crumble and streams run backward,' never turn your faces from the path of serving your country with all your might."

The three lads were dumfounded. They had supposed that they were obeying the strict canons of samurai faith when they decided to fight side by side with Saigo if his cause were just and to protest against it by suicide if it seemed unjust. Next day they set out on their return journey to Tokio. It would have been impossible for them to seek readmittance to the Naval College after such an escapade, had not Saigo furnished them with letters to Admiral Kawamura entreating that their sin of insubordination might not terminate their career in Japan's service. Admiral—afterwards Count—Kawamura was himself one of Saigo's most devoted followers. He it was who a little more than a year later received and washed the head of the great Satsuma leader after the latter with his lieutenants had died by their own hands on the field of Kagoshima. Minister of the Navy at the time of the three students' escapade, Kawamura was able to secure their pardon.

This story has just become public for the first time. The narrator was Admiral Kamimura himself. He related the incidents when visiting the house of General Viscount Takashima en route to join the fleet a few weeks before the arrival of the Baltic squadron in Far Eastern waters. Takashima, in accordance with the traditional custom of Japan, had presented to him an heirloom sword blade, which gift, made on the eve of battle, has from ancient times borne the significance of an exhortation to triumph or to perish. It recalled to Admiral Kamimura that other crisis on the threshold of his career when he so nearly became involved in the one irremediable catastrophe of the Meiji era, and it reminds the nation to-day with what profound insight Saigo Takamori chose the men whose services he dedicated to his country, and how unerring was his prescience of the events lying in the lap of Japan's future. In the thirtieth year after the clandestine visit of these three youths to Kagoshima two of them earned undying fame by crushing Russia's naval might, and the third directed the Empire's naval administration throughout the life and death combat which the Satsuma leader had so clearly foreseen.—London Times.

New Petroleum Deposits in Asia.

Europe as well as America is interested in the discovery and exploitation of new petroleum deposits, and at present Mesopotamia is the country to which attention is being directed. There have been discovered in the province of Bagdad, near the Tigris and north of Samarna, a number of rich springs, while on the Euphrates near Hit similar springs also have been found.

On account of the brigands this district does not afford good opportunity for prospecting and development, but in the Kerkuk district the future for such activity is much more promising, and not only petroleum, but also coal, is found, the former being used for lighting by the natives, while the coal has been tried on the Tigris steamships, proving, however, too bituminous. There is every evidence that the petroleum deposits are extensive and will repay ample working, but it is believed that the completion of the Bagdad railway and increased shipping facilities on the Tigris must be provided before they can be turned to practical account.—Harper's Weekly.

Motoring Makes Fat.

Women who are afraid of growing fat and adding adipose tissue should not motor much. Nothing increases the appetite like rushing through fresh air, while the fact of sitting all day prevents the taking or ordinary exercise. Few people walk after they acquire a motor. Progression seems too slow and too tiresome, so that, like hens shut up in a coop, they only stir to eat. If it is desired to retain the figure, a woman should not motor every day, or at least not all day, and should take care to indulge in a brisk walk, a ride, or a bicycle run as well, in order to exercise the muscles and keep them supple and strong. It is extremely easy to get fat and shapeless in a very short time, and as difficult to return to one's normal condition of slimness. The average motorist is fat and blessed with an admirable appetite.

NEW THEORY OF SUN AND STARS

Worked Out by Mathematical Methods by Prof. See, U. S. N.

THE Astronomische Nachrichten contains a new theory of the sun and stars by Prof. T. J. J. See, U. S. N., the astronomer formerly in charge of the large telescope of the Naval Observatory in Washington. The new theory is worked out by mathemathical methods, and is revolutionary in more ways than one.

Dr. See starts out by showing that the matter of the sun is reduced to single atoms by the enormous heat to which it is subjected, and that no possible chemical combinations can take place in the sun. Even hydrogen, oxygen and nitrogen, which make up our air in the form of molecules composed of united atoms, are split apart by the sun's heat. This is called by Dr. See the monotomic theory.

It was first touched upon by the American astronomer, Lane, in 1869. Prof. See has revised and extended Lane's neglected work, and given the whole theory of the sun a mathematical form. Some of the principal points in Dr. See's theory are as follows:

1. The sun is made up of single atoms, and the central density is exactly six times the mean density. This is described as a new law discovered by Dr. See and verified with great labor. It applies to all the fixed stars as well as the sun, and is thus a general law of nature. Tables are given, and also curves showing what the density is at every point of the sun's radius.

While the density at the centre exceeds that of iron and turns out to be identical with that of German silver, near the surface it becomes exceedingly small. One-tenth of the way down to the centre the density is only 153 times that of air, and at the surface the density lies between one-tenth and one-hundredth of that of air.

2. It is shown that the temperature rises with enormous rapidity as the sun's mass is penetrated, becoming at the centre 50,000,000 degrees centigrade. The heat just below the photosphere is shown to be nearly half a million degrees—so intense that the light and heat are driven through the outlying gas like light through the earth's atmosphere.

In this way Dr. See explains the sun's surface radiation without the use of convection currents, assumed by previous writers. They have uniformly held that hot currents come from the depths of the sun, while cold currents sink after their heat is radiated away. Dr. See does away with all this complex theory.

3. The pressure is shown to increase downward in the sun at a tremendous rate, becoming more than fourteen billion atmospheres at the centre. Imagine a column of mercury erected from the earth one-sixth of the way to the sun and pressing throughout as a column of quicksilver does here at the earth's surface and you have an idea of the pressure of the sun's centre. In addition to this pressure it has a temperature of 50,000,000 degrees centigrade.

The mean velocities of molecules are shown to be 354 miles a second. Even near the surface the pressure is great, and therefore circulation of surface matter making up the promiuences must be quite shallow.

At one-tenth of the way to the centre the pressure is two and one-half times that at the centre of the earth, and the matter therefore much more rigid than the armor plates of a battleship, though only 153 times as dense as air.

4. Prof. See calculates the total amount of heat stored up in the sun, and shows that when a star or sun is made up of single atoms only one-half of the heat developed in condensation is radiated away, while the rest is stored up. Hence it follows that one-half of all the heat produced by the sun since eternity is still stored up for future radiation. This leads to the conclusion that the future duration of the sun will be at least three times that of the past.

Some scientists have supposed that the sun's light and heat are beginning to fail, but Dr. See shows by calculation that the sun's activity is still rising and that we have as yet by no means reached the zenith of glory in the life of the solar system. This conclusion is verified and applied to the stars of the Milky Way, and he shows that their brilliant light is due to this accumulation of heat within their flaming globes.

When we look upon the stars at night, therefore, we are to remember that a little more than fifty per cent. of their light and heat from eternity is still stored up for future radiation. Hence the future duration of the universe will be immense and the stars are by no means dying out as some have supposed.

5. The contraction theory propounded by Helmholtz in 1854 is extended by Dr. See, who shows that the annual shrinkage in the sun's radius is about twice what Helmholtz originally calculated, being seventy-one metres per annum, in place of thirty-five metres given by Helmholtz.

Prof. See gives an equation for the sun's diameter which he says will hold for a million years. In that time the sun will shrink one-tenth of its diameter, which could just be perceived by the naked eye.

Trick of Irish Students.

On the occasion of the conferring of degrees at Dublin University recently, a number of students stormed the organ gallery and prevented the playing of "God Save the King." They sang, instead, "God Save Ireland."

UNCLE SAM'S UNIQUE CORD

The Peculiar Twine Always Used in the State Department.

"Though the State Department has been using a distinctive cord for tying up its official papers for over sixty years," explained an old official of that department, "known as 'official cord,' I have never seen a reference to it in any newspaper or other publication. The cord is about the usual size, and is made of silk, of three colors, intertwined, red, white and blue. As is well known, the other departments of the Government use red tape, and many of them use considerable of it, in various ways. The State Department, as far as I can learn, has always used the 'official cord,' which is much more patriotic in appearance certainly, and is as strong for all purposes. The origin of the official cord is a matter of considerable conjecture, and as far as I have been able to discover, is somewhat misty. It is known for a certainty that it has been used since 1845, for there are bundles of the official papers in the State Department to-day which are tied up with the red, white and blue cord, and there are reasons for believing that it was used even before then. Every United States legation, consular office and consular agent has used it on all official papers which have been sent to Washington from all parts of the world, for the State Department has always supplied it to the legations for that purpose. Every now and then Presidents have used official cords in tying up their messages and reports which they have from time to time sent to Congress, and many of them have always kept a ball of it on their desks, though some have not. I personally know that Presidents Buchanan, Lincoln and Grant constantly used it. So did President Hayes, Arthur and Cleveland. I do not remember that Generals Garfield and Harrison used it, but President Cleveland did, and President Roosevelt very frequently uses it. I also know that every official paper that all of the Presidents since 1845 received from the State Department has been tied up with the official cord in preference to the red tape used in all of the other departments. The State Department has its own way of transacting business, and it has always used official cord. For similar reasons it has never taken kindly to typewritten papers, and has never used the typewriter on any communication ever sent to a foreign Government. It sticks to the old style of pen-written papers, and as closely as possible to the style in every way to those used by the fathers of our Government. Even the paper is the same size and shape, all communications to foreign Governments being on a paper about one inch wider and a couple of inches longer than the ordinary legal cap in general use. The State Department, however, uses the typewriter for all official papers, except those sent to foreign Governments."—New Orleans Times-Democrat.

Carries Bullet in His Heart.

John L. Pruden, carrying a .32-calibre bullet within the pericardium of his heart, has recovered from his wound.

Pruden, who is eighteen years old, and George Williams were out shooting a cat. They had with them a revolver, which was thought to be empty, and Williams carelessly pointed it at Pruden while reloading. The weapon was discharged.

When probing for the ball the throbbing of the heart is said to have almost knocked the instrument from the surgeon's hands. The physicians were afraid to probe further and decided to let nature take its course. Many of the physicians attending were under the impression at the time that the bullet rested within the pericardium, and several of them are positive that the wall of the heart was penetrated.

At the time of the accident the youth lived in the country, but he is now clerking in a store. He suffers no inconvenience from the bullet. He was in bed just one month from the effects of it.—Baltimore Sun.

Ugly Deer in Vermont.

It is seriously affirmed that farmers in the northern part of Rutland County would like permission to kill a big, ugly deer that would weigh dressed 300 pounds and has immense horns.

This terror of the woods, they say, chases men to cover, will not yield the right of way when he meets teams in the road, and in devious ways makes himself decidedly unpleasant. He recently paid a visit to a Castleton farmer and, when ordered away, refused to leave, although seven other deer that were with him turned and fled when the farmer and his dog went out. The big deer, however, was in no humor for debate, and promptly chased the collie into the barn.—St Albans Messenger.

Soulful Sigh.

A melodrama was presented at Leroy, Kan., recently, and the Reporter declares that "when the blind heroine gave the letter to the villain, supposing it was her husband, some woman, overcome by the dramatic fulness of the movement, gave a most soul-spending sigh. It was a sigh that could easily melt the heart of the Egyptian Sphinx and turn Pike's Peak into a seething mass of lava."

Beginning of Iron Industry.

The first iron forge within the territory now the United States was erected in 1652 at Raynham, Mass. This was preceded by a bloomery erected in Virginia in 1619. The first blast furnace with a forced blas was built about 1714, also in Virginia.

Speaking of Others.

When speaking of other people, every word we think should pass through three sieves before it gets to our lips. Is it true? Is it kind? Is it necessary? —Detroit Free Press.

A specimen of a herd of the smallest sheep in the world—they are only nineteen inches high at the withers—is now to be seen at the Natural History Museum at South Kensington, England.

An odd advertisement in a German newspaper, in which a tempting offer is made in these words: "Anybody who can prove that my tapioca is damaging to health will at once receive three packages gratis."

It is calculated that in London alone about four thousand persons regularly make a living by begging; that the average income for each amounts to $7.50 a week, or together over $1,500,000 a year.

A British explorer recently returned from Abyssinia reports the discovery of a region hitherto unknown to white men. Among the tributaries of the Blue Nile he found a mining population washing gold. He says thousands of natives are at this work and gold is plentiful.

A French lawyer whose sport is ballooning thinks it a mild, safe and comparatively inexpensive diversion. He has made sixty ascents without injury to himself. A well-made balloon will last ten years—longer than an automobile—and will cost only four hundred to one thousand dollars.

There is a railway over the Egyptian desert which runs for forty-five miles in a straight line, but this is beaten by one in Australia. The railway from Nyngan to Bourke, in New South Wales, runs over a plain quite level for 126 miles, in a mathematically straight line. There is hardly an embankment, not one curve and only three very slight elevations.

The Chinese do not take to horse-racing, but they have wildly exciting sports of their own on which to wager and lose their cash. There are the cricket fights at Hong Kong, for instance. Many thousands of people journey from Canton to Hong Kong to see this sport. The crickets themselves are valued by their owners at enormous prices, a victorious sect fetching sometimes hundreds of dollars.

The Elimination of the Horse.

One of the most striking suggestions for the amelioration of traffic conditions in overcrowded city streets is to restrict certain highways, such as Broadway, New York, to motor vehicles. There would be an important saving in space, as the elimination of the horses would permit at least half as many more vehicles to occupy the streets, whether in motion or when drawn up at the curb ready for loading or unloading.

Furthermore, it is a fact that motor vehicles, and especially those for freight, can be run at much greater speed than trucks drawn by horses, while their control is a far simpler matter.

Then there is also the fact that a single motor truck can be constructed of larger dimensions than any horse-drawn truck. Such a plan has been seriously considered by engineers interested in municipal development, and there are many points to recommend it, such as the decrease of wear on streets due to narrow-tiled wheels, the absence of dirt, and, possibly, less noise.—Harper's Weekly.

A Prison-Grown Present.

"The most amusing New Year's present I ever had came from a man who hated me," said the superintendent of a Massachusetts reformatory. "I suppose the fellow meant it for an insult, but the humor of the thing was too great for me to get angry. This fellow was with us about a year, and at that time we never allowed the people here to shave. They had to let their whiskers grow.

"Well, this chap was a dapper sort of person who cared a great deal about his personal appearance. He implored me to allow him to get rid of the luxuriant growth of 'spinach,' and when I refused became rather sullen. His beard was red, thick and wavy and grew unusually fast. He left us just before Christmas, and on New Year's day I received an attractive package, which looked as if it might contain a valuable gift. But inside was a big bunch of red whiskers, carefully packed in excelsior and bearing the legend on a little card: 'Grown in the B—— Reformatory. Accept with my compliments. E. Green."—New York Press.

Freak Wells.

Four freak wells have been "brought in" in the Kansas oil and gas belt in recent years. One at Dexter is a hot-air well. It shoots a big volume of hot air 100 feet and warms things up all around. Near Sedan is another hot-air well, not quite so large. Near Beaumont a white-gas well brought itself in, tearing out casing and wrecking the derrick. A column of white gas shot up 200 feet in the air. It looked like smoke, but burned all right. A mud well has just been struck in Chautauqua County. At first there was a roar and some gas, and then a column of mud shot out of the well about twenty-five feet high. This has kept up intermittently for some weeks.—Kansas City Journal.