

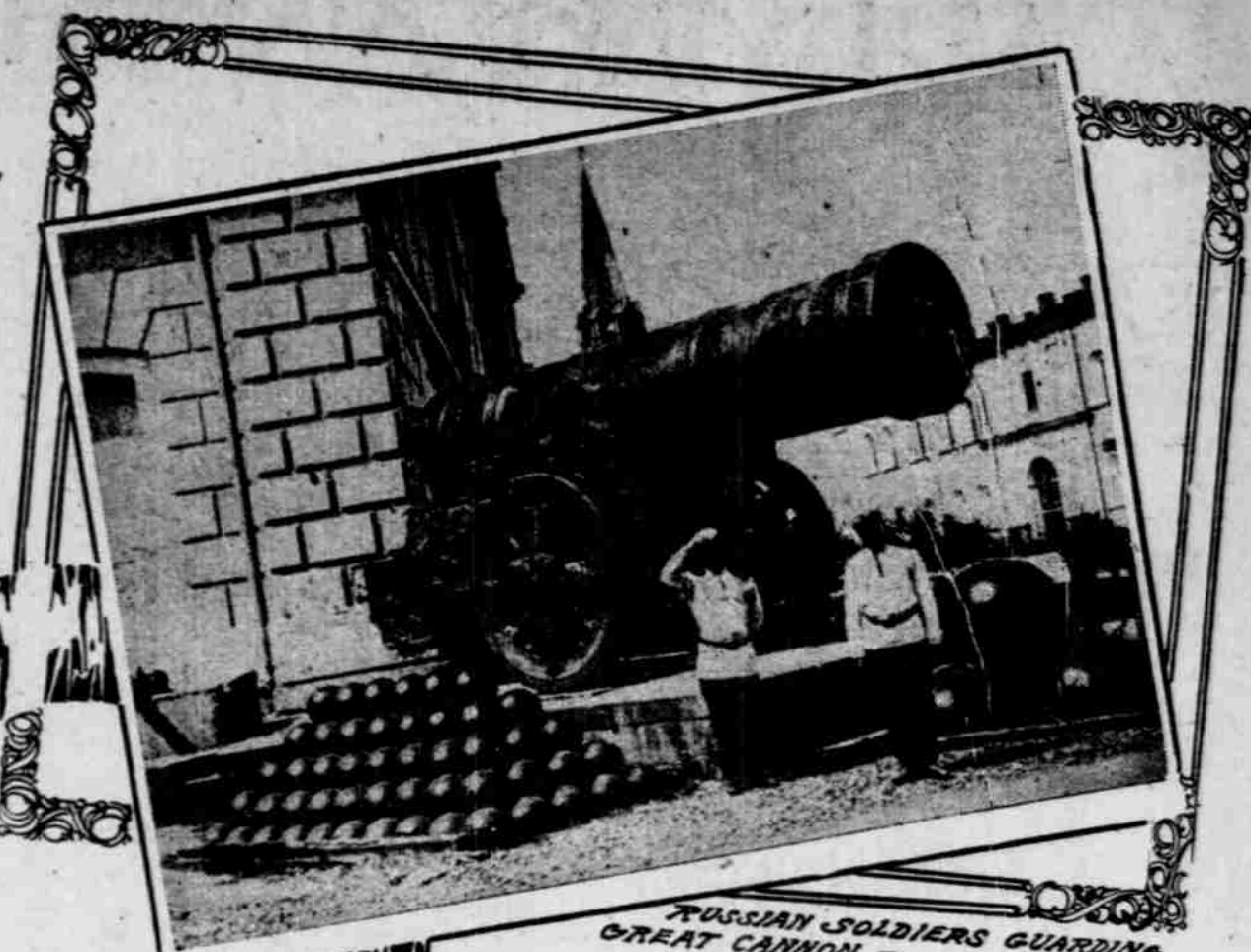
WITHIN THE HISTORIC KREMLIN at MOSCOW



KREMLIN PORTAL IN SPASSKIYA VOROTA (GATE OF THE SAVIOR) ONE OF THE MOST REVERED HISTORICAL PLACES OF RUSSIA



ONE OF THE SIGHTS OF KREMLIN, IMPOSING TOWER OF IVAN THE GREAT



RUSSIAN SOLDIERS GUARDING GREAT CANNON.



THE GREAT BELL KREMLIN MOSCOW

Near this tower is what seems to be the father of all bells. It is known as the Great Bell of Moscow. It was cast by the order of Empress Anne, and 10,000 pounds of metal were used. De Montferand, the architect of St. Isaac, rescued the bell from the place where it lay half buried in the ground. Not much is known of the history of this wonderful bell, and to this day no one has been able to guess from what sort of structure it was suspended, or by what enormous mechanism it was rung. A great piece has been broken off, but is kept near by.

The Great Gun of Moscow is another imposing relic of a similar character that stands in the Kremlin. It is a cannon of heroic proportions, and its barrel and carriage are carved with a beauty that give the great outlines a grace usually not associated with implements of war. In former times the Kremlin contained monasteries and convents, of which only a few remain. Of these one of the most picturesque is the Malign Convent, where the Princesses were housed, and the Tobolsk Monastery, an institution of historical moment, and a place of influence in the development of ecclesiastical learning in Russia.

Modern Palaces.

The palaces of the Kremlin are mostly modern, and only a few of the old buildings survive. The great palace finished in 1861, is a vast structure of white stone with a cupola, and possesses numerous magnificent halls devoted to the honored orders of Russia. Attached to it are the living rooms of the old Russian rulers, known as the Terem. They are of great architectural value, and well preserved.

Connected with the old palace is the historic banquet hall known as the Grandovaya Palata, with its red steeple, from which Russian monarchs used to address the populace.

The Palace of the Patriarch is one of the most valuable libraries in Russia, and a treasure of fabulous wealth.

But the Kremlin is not devoted alone to intellectual and religious features. The initiatory power, on which has rested the strength of the nation, and which until the Japanese war was believed to be little short of omnipotent, has also its representation in this Mecca, this Jerusalem of the Muscovite.

The Arsenal is one of the largest in the world, and is a storehouse of wonderful arms, not only because of historic significance, but those of modern manufacture, which could be used with deadly effect in any contemporary battle.

In front of the arsenal are the 500 odd guns taken from the French, and which are preserved as ideal trophies of Russian valor.

The Hall of Arms is another wonderful treasure-house of marvelous relics. In it are crowns, scepters, thrones, costumes, banners, carriages, armor, gold and silver plate, etc.

The treasures of this wonderful palace run deeply into the millions.

The Kremlin has thrice suffered from flame. Tamerlane and his victorious hordes ravaged it, and the Tartar invaders also put the torch to it. Last was the fire of 1812, that heroic act of self-sacrifice, when the Russians freed Moscow themselves in order to save it from Napoleon.

A thrilling story attaches to the 13-spired cathedral of St. Basil.

Ivan the Terrible is said to have called its architect to him when it was completed, and asked him if he could duplicate his marvelous work.

The architect, with the pride of a true artist, declared he could even surpass it. Ivan straightway blinded him, and St. Basil remains its creator's masterpiece.



THE FAMOUS EDIFICE WITHIN KREMLIN, CATHEDRAL OF ASSUMPTION IN WHICH ALL RUSSIAN MONARCHS SINCE IVAN IV, HAVE BEEN CROWNED

THE Kremlin of Moscow has loomed large in the public prints of late. Within its walls the Grand Duke Sergius met his tragic death, and the recent uprisings in the ancient capital of Russia have caused incessant references to it.

The average American can have little conception of what this venerable pile is. There is no place like it anywhere else in the world. It is the sacred shrine of the Russians, the palladium. Yet in appearance it is more Asiatic than Russian. It looks more like the Alhambra than any product of Russian life.

Exactly speaking, the Kremlin is a city within a city. Moscow is six miles long by six miles wide. The Kremlin is a triangle in the center of this. It is enclosed by a wall two miles in length. It is a royal dwelling place, the shrine of Moscow, its fortress, and the loyal Russian call a proverb that above Moscow is only the Kremlin, and above the Kremlin is only Heaven itself.

The wall that surmounts this holy of Russian holies is in itself a relic of great interest. It is surmounted by 18 towers and is pierced by five gates, among which the "Gate of the Savior" is one of the most revered spots in this place of superstition and reverence.

It is associated with many famous events in the history of Russia.

Within the Kremlin.

Within the confines of the Kremlin most of the buildings are Byzantine in architecture. It has many points in common the Orient and the myriads of cupolas like shining balls are ever-present reminders of the minarets of a mosque.

The marks of the war of 1812 have been obliterated from the walls by the liberal use of the Alhambra. Like the Moorish fortress, it occupies the flat top of a hill, that is enveloped by a tower-flanked wall. The massive red towers call to mind the walls of Babylon. But the presence of soldiers and guards makes it easy to recall the Napoleonic invasion. There is a further reminder of them in the form of huge number of guns which were taken from the French troops. The visitor who enters the "Gate of the Savior" must remove his hat, and keep it removed. There are other shrines and temples where to take off the head covering is not enough. The shoes must also be doffed.

The most pretensions of all the structures of the Kremlin is the patriarchal Cathedral, the Church of the Assumption. Although small in size, it is of great historic interest. It is called the Heart of the Kremlin.

This church is one of the oldest structures in Russia, for that country, as we know, is really a very new one. The Church of the Assumption was built in 1328, and reconstructed a century and a half later. Its interior is filled with tombs and pictures of great interest, and contains the silver shrine of St. Philip.

The building was erected by Aristotile Fioraventi, and is Lombardo-Byzantine in style. Here every czar from the time of Ivan the Terrible to Nicholas has been crowned.

The Cathedral of St. Michael, the Archangel, is the former burial place of the czars. The richly decorated interior has its walls lined with portraits of these rulers, and much of what is known of Russian history comes from this church.

Another church of importance is the partly Greek Gothic Cathedral of the Ascension, founded in 1377. Its walls and pillars are covered with paintings of the saints and Greek philosophers.

All of these churches are surmounted by their cupolas with Greek crosses on top. The effect of this is marvellously beautiful, for in the sunlight they shine and glow like lamps.

Colossal Bell.

Russia likes bells, and there is a passion for them in the Kremlin. The Tower of Ivan the Great, 32 feet high and crowned by a gilt dome, contains 24 bells, which weigh more than 580,000 pounds.

MAKING OF ORDINARY COOK

Bread Baking, by Miss Lillian E. Tingle, Director Portland School of Domestic Science.

BEFORE giving any instruction in bread-making, I always find it desirable to make two plain statements. First, nearly every woman who makes bread at all can make "the best bread you ever tasted," etc. If she cannot, her mother could—when she has "good luck." Second, the average quality of home-made bread in America is very low.

To justify me in making the first statement, I have the personal testimony of an enormous number of women; as authority for the second, I have the word of many high authorities, the results of investigations for scientific and philanthropic purposes, the observations of teachers of domestic science, and, of course, some personal experience and suffering. In order to reconcile the two sides of the question, you may, if you like, hold the belief that "good luck" is rather rare; but unfortunately for me, I don't much believe in luck in relation to bread-making, so I have a busy time trying to believe both authorities.

If you are an exceptional woman and have trouble with your bread, don't talk about luck; study your material and the conditions necessary for success—there are lots of cookbooks and free Government bulletins to help you, and good cook-stoves and bread-mixers are less taxing to a husband than dyspepsia and crankiness.

You have probably heard the story of the visiting minister who asked a busy housewife, "Have you not often cast your bread upon the waters?" and received the indignant reply, "Never, since my first batch!" Suppose that you have not yet made your "first batch," how are you to avoid having to cast it "upon the waters" or into the garbage pail? Perhaps I can help you, even without going very deeply into the subject—a subject about which

volumes have been written. First, then, the materials.

For light, white, spongy bread, agreeable alike to sight, smell and taste, the essentials or "must-haves" are:

1. Good wheat flour.
2. Salt.
3. Yeast.
4. Water.
5. Fat.
6. Sugar.
7. Potatoes.
8. Eggs.

Flour for breadmaking should contain a large percentage of gluten—the sticky substance that you find in your mouth when you chew wheat. When prepared by washing under a faucet a little flour in a muslin bag, the gluten is seen to be something like white of egg, which in fact it resembles in its chemical composition and tissue-building qualities. It is the gluten that expands and gives the power of stretching and rising as the gas from the yeast expands within it, and thus making a light loaf. The digestibility of bread depends largely upon its lightness, and the digestibility as well as its chemical composition determines the nutritive value of bread. Rye, barley and corn have less gluten than wheat, and corn has none. To quote a Government bulletin on this subject: "It seems safe to say that as far as we yet know, for a given amount of money white flour yields the most actual nourishment with the least food ingredients in the best proportion." A "strong" flour is one containing much gluten. Such flour, while excellent for breadmaking, will not give the best results for cake or pastry. For breadmaking it should be not only dry but warm, as will be explained later.

2. Salt. This is simply for flavor, some

people preferring unsalted bread. One level tablespoonful to one quart of wetting is generally liked. It tends to retard fermentation.

3. Yeast. What we call yeast is a collection of living microscopic plants, each consisting of a single cell. These are given the necessary warmth, moisture and food and then begin to grow and multiply. Chemical changes take place as a result of this. Some of the starch is changed to sugar, and some of this sugar to alcohol and carbonic acid gas, which forms minute bubbles in the sticky dough in which it is entangled, and lifts up the dough as it expands and tries to escape. On baking, the walls of these bubbles become stiff and fixed, the gas is driven off and the yeast plants killed. If the dough is left too long without baking another change takes place: the alcohol breaks up into acetic acid and water and "sour bread" is the result. In some countries particular kinds of bread are allowed to sour on purpose, but this is scarcely in accordance with American taste.

Yeast grows best between 65 and 75 degrees Fahrenheit. Hence we try to keep the dough from start to finish at a uniform temperature of 70 degrees. Success in breadmaking depends largely upon careful regulation of temperature. The life of the yeast is suspended at 30 degrees Fahrenheit, and the plant is killed at 212 degrees. Knowing these things, it becomes a much easier matter to control the growth of the yeast. Doing class work under difficulties in a cold bread, say, on a Tuesday morning, and by careful management have held back the baking until the students came on Thursday afternoon, and had good sweet bread, too.

Yeast is used in several forms: most commonly you may choose (1) home-made or liquid yeast; (2) dried yeast, usually mixed with cornmeal, or (3) compressed yeast. The last if secured fresh is most reliable. One cup of

home-made yeast is about equal to one yeast cake, dry or compressed. These latter should be dissolved in one-half or two-thirds of a cup of lukewarm water before being used. One-half yeast cake to every quart of wetting might be used if the bread is to rise over night. The time may however, be shortened by increasing the amount of yeast, even as much as two yeast cakes to a quart of wetting. Generally one quart of wetting will require three quarts of flour, and will give four medium-sized loaves. This rule is, of course, not absolutely exact, owing to variations in flour, but it will serve as a guide. Whatever liquid is used should first be scalded, then cooled to lukewarm before the yeast is added.

4. Water. Shortening is not absolutely necessary, but makes the bread more tender. Increase in quantity of shortening means longer time for rising. Usually two or three level tablespoonfuls of lard or butter per quart of wetting is liked.

5. Sugar aids the growth of the yeast, and while not essential improves the flavor to some extent. One or two level tablespoonfuls per quart may be used for loaves; more for rolls. Molasses may be substituted in graham bread.

6. Potatoes are said to increase the moisture and lightness of bread. If used, allow four medium-sized potatoes for each quart of wetting. Peel, boil, strain the water and use it for wetting. Mash the potatoes perfectly smooth, beat until white, and add to the sponge, or to the wetting if no sponge is used.

7. Eggs are used chiefly in rolls or fancy breads. The whites are often beaten separately before being added. The dough must be much softer where eggs are used, to compensate for the extra stiffening power of the egg.

The next lesson will deal with the actual process of breadmaking.

LILLIAN E. TINGLE.

ONE MAN SAVED 250,000 LIVES

Lord Joseph Lister, to Whom the World is Indebted for Antiseptic Treatment of Wounds.

IN an age when honors are lavished for the skill with which men compass the death of thousands of their fellows one cannot pay too much homage to those whose mission it is to save and not to destroy life, and happily there still remains among us the king of them all, a man whose monument may some day be inscribed thus: "He saved a quarter of a million lives."

To no other man who has ever lived can such a tribute be paid; but to assert that Lord Lister, the "grand old man" of surgery, has snatched 250,000 men from the grave is probably to understate the truth. When Joseph Lister first made his acquaintance with a hospital about 60 years ago on an operation of any importance meant almost certain death, and even "quite simple" operations were full of risk. The wounds made by the surgeon's knife refused to heal, putrefaction was followed by suppuration, the patients became delirious and in a startling majority of cases died.

It was Lord Lister who discovered the deadly secret of all this mortality. He found that the putrefaction of the wound was due to the presence of germs which were introduced from outside, and in carbolic acid he discovered the means to kill these germs, thus by this simple discovery revolutionizing surgery and saving countless lives. An early result of this antiseptic treatment was that "gangrene" which had infected 90 per cent of the wounds disappeared entirely, and today operations which would have meant certain death half a century ago are performed daily without the least risk of fatal consequences.

Such in briefest outlines is the change Lord Lister has wrought in surgery and one has only to read of the horrors of the hospitals in pre-Listerian days, with their delirious and dying patients, and their compound odor of boiled mutton and sour potatoes; and then to pay a visit to a hospital of today to realize how revolutionary is the change wrought by this one man.

It is 50 years almost to a day since

young Lister began to study surgery and medicine at University College, London. He was the son of a very clever man, a fellow of the Royal Society and the inventor, practically, of the modern microscope and, as might be expected from the son of such a father, he quickly distinguished himself among his fellow students, graduating brilliantly and taking the coveted F. R. C. S. before he was 25. Then followed a period of splendid training at Edinburgh under the great surgeon, Mr. Syme, whose daughter he married, and in 1860, at the early age of 23, he was made regius professor of surgery at Glasgow.

It was here that he became so deeply impressed by the terrible mortality due to operations and he set to work to discover the cause, with the results which we have described. There are still living students who saw him first experiment in antiseptic surgery by making a paste of carbolic acid over the wound, and it was soon admitted that "Lister's wards" were the healthiest in the world. But, like many another prophet, he found least appreciation among his own countrymen. Germany, France and other continental countries adopted his methods with avidity and his fame was European before Great Britain became a tardy convert to his teaching.

And never, perhaps, did so great a man bear his honors so modestly. At 78 he remains, to quote a great surgeon, "as simple and lovable as a child." His old pupils adore him; his numberless friends respect and love him; the world counts him one of its greatest benefactors.

It is the joy of the household, for without it no happiness can be complete. How sweet the picture of mother and babe, angels smile at and commend the thoughts and aspirations of the mother bending over the cradle. The ordeal through which the expectant mother must pass, however, is so full of danger and suffering that she looks forward to the hour when she shall feel the exquisite thrill of motherhood with indescribable dread and fear. Every woman should know that the danger, pain and horror of child-birth can be entirely avoided by the use of Mother's Friend, a scientific liniment for external use only, which toughens and renders pliable all the parts, and assists nature in its sublime work. By its aid thousands of women have passed this great crisis in perfect safety and without pain. Sold at \$1.00 per bottle by druggists. Our book of priceless value to all women sent free. Address: DRAFIELD REGULATOR CO., Atlanta, Ga.

BABY'S VOICE

MOTHER'S FRIEND