...OM OLD SCOTLAND

...S OF INTEREST FROM HER BANKS AND BRAES.

...Is Going On In the Highlands and Lowlands of Auld Scotia.

...shire has about thirty thou... applications for sugar for jam...

...one thousand three hundred ... acres in Fife have been plant...

...Urquhart, Academy Street, ... presented 160 volumes to the Public Library.

...

...Success in Canning...

...ruits and vegetables ... apples 20 ... berries 12 minutes, cherries ... minutes, currants 12 to 15 ... gooseberries 12 to 15 min... ...hes 12 to 15 minutes, pears ... plums 12 to 15 minutes, ...0 minutes, asparagus 120 ... greens 120 minutes, beets ... minutes, cauliflower 60 min... ...ots 60 to 90 minutes, ... parsnips 90 minutes, ... to 180 minutes, string beans ... minutes, tomatoes 20 to 30 ... fruit without sugar 30 min...

...anitoba Calls For Help

...have caused demands for in... ...arm help in Manitoba. About ...itional men are required to ...g in the crops, according to ...t reaching the Canada Food ...abor equivalent to about ... will be secured within the ... leaving 5,000 required from ...

...weeds before they go to seed. ... the fence corners and the ...ong the roadside.

...a man who undertakes to ... his ideas discovers when it ...e that he is a victim of mis...nfidence in himself.

THOSE TIN HATS OF TOMMY ATKINS

OUR MEN JOKE ABOUT THE STEEL HELMET.

But It Is Now Recognized As One of the Soldier's Best Friends.

One of the most curious features of this stupendous war is the way in which one by one the old weapons and implements of warfare which inventions swept away long ago have made their reappearance, writes a British officer. Hannibal's "shock columns" of elephants and the war chariots of Rome have been revived in the Tanks; the steel cap of the musketeer; the hand-grenade, whose universal vogue in the fighting of a century ago still lingers in the names of crack foot regiments, both British and German; the mortars of bygone days. Each of these appliances of campaigns of long ago have been brought back into usage by the march of events in the world-war of to-day.

Trench warfare—those years of stagnation when French, British, and Germans went to earth in miles of trenches—gave us back the hand-grenade or bomb. Its purpose was to clear a trench. And so it was the bomb which brought into vogue again the steel cap or helmet not seen on the battle-fields of Europe these two centuries past. To the French is due the interesting idea of introducing this additional protection against the large percentage of head wounds (the majority of which were fatal) resultant in trench warfare from bombs and shrapnel.

We Got Them First!

The Germans' heavy and ungainly, though undoubtedly well-designed, steel helmet did not make its appearance in the field until both the French and British troops were all provided with the new helmet.

The steel helmet is called shrapnel-proof. This exactly describes it. It is not bullet-proof, nor with it withstand a fragment of shell or a shrapnel ball from a projectile bursting close to the wearer. But it will often turn off a fragment of metal or a bullet coming obliquely, and it is practically proof against bomb splinters. In short, it affords a most invaluable additional protection to the soldier in the line.

The British steel helmet cannot be described as a comfortable article of dress. Rather like a small, shallow, inverted basin to look at, it feels like one to wear. In fact, it takes several days continuous wear to get the feel of a steel helmet so as to balance it on the head easily and without effort.

Steel helmets are generally covered with a khaki waterproof or sacking cover, ... nowadays are almost invariably decorated with the regimental ... The reason for covering the ... after rain, when the ... wet, the polished steel ... light and can be seen glistening ... distance. In shape the ... helmet has always seemed ... strangely indicative of the ... character. Its plain severity, ... with the higher ridged, ... helmet of the ... without a certain elegance ... and it lends an air of ... to the wearer. How ... on the other hand, is ... of the Boche! Cumbrous, ... irredeemably ugly, it ... the lack of taste distinguishing ... everything the Hun undertakes, ... its eminently utilitarian qualities ... solid steel, the protecting ... the back are symptomatic ... practical mind of its inventor.

A Friend Indeed!

The steel helmet has now become the trusted friend and companion of the British soldier. Indeed, it is put to many uses ... alien to that for which it was primarily designed. Many a time I have seen a man take out the lining and use his helmet to wash and shave in, afterwards employing it to boil the water for his tea. I have seen water brought to a wounded man in it. Once, at some horse-lines, I saw a man squatting on his haunches and washing his socks in his helmet. More than once a steel helmet salvaged by my soldier servant from the battle-field has served me as wash-basin in the front-line trenches.

The British soldier, happy-go-lucky as he is, has come to recognize the value of his steel helmet! Most of us who have been in action in France have stories to tell of our own or other men's lives saved by "tin hats," "tin lids," or "battle bowlers." A brother officer of mine has worn for something like two years a steel helmet with a dent in it as big as a small potato—a souvenir of a small lump of shell which knocked him off his feet one afternoon in the Ypres Salient. I have seen a helmet in the rim of which a machine-gun bullet had cut a clean nick. The wearer of that helmet never knew he had been struck until he doffed his "tin hat."

Winter pasturage is really what is secured by the use of silage. Moreover, it is a food that is both palatable and succulent.

Young Wife—I wish to get a war bond for my husband. Clerk—What size, please? Young Wife—Why, I don't know exactly,—but he wears a fifteen shirt.

WOULD MOUNT GUNS ON FROZEN CLOUDS

THAT IS ONE OF COUNTLESS "FREAK IDEAS."

British Ministry of Munitions Receives Many Such Novel Plans For Winning War.

The inventions department of the Ministry of Munitions receives almost every day ideas of the most novel kind. All are carefully considered. Some are useful, but almost nine-tenths are wholly impracticable. In an article on the subject, published in the current number of the Ministry of Munitions Journal, it is said that the following extraordinary suggestions for dealing with hostile aircraft have been received.

The clouds are to be frozen artificially and guns mounted on them; heavy guns are to be suspended from captive balloons; the moon is to be covered with a big black balloon; airplanes are to be armed with scissors or scythes, like Boadicea's chariot, or to trail bombs behind them on a long cord; heat rays are to be projected for the purpose of setting Zeppelins a fire; electric waves to paralyze the magnetos. One of the most popular suggestions of all is to attach a searchlight to an anti-aircraft gun, get the light on the object, and shoot along the beam; but, unfortunately, the path of a shell is quite different from that of a ray of light. Most elaborate "decoy" schemes are sometimes worked out for the confusion of the enemy, comprising in at least one case sham factories with chimneys and hooters complete. To prevent the polished lines of a railway showing at night, the last carriage of the last train, according to another correspondent, was to camouflage them by dribbling blacking as it went along.

Other proposals were:

A balloon carrying magnets hung on strings to attract the rifles out of men's hands.

A shell to contain fleas or other vermin inoculated with disease.

A shell with a man inside it to steer it at the target.

The squirting of cement over soldiers so as to petrify them.

The sending of snakes into enemy trenches by pneumatic propulsion.

The throwing of live-wire cables carrying a high voltage among the advancing infantry by means of rockets.

Germany should be attacked in one case by making a "tube" all the way, and in another by employing trained cormorants to fly to Essen and pick out the mortar from Krupp's chimneys.

An Offensive Lawnmower.

One corerspondent sent quite a number of original methods of repelling attacks, including large caliper-shaped devices which could be closed on any one intruding between the legs; a series of nets spread in front of our lines which could be drawn so as to enmesh the Germans, and a machine of the nature of a lawnmower as large as a tank to make mincemeat of them.

The purpose of the article in the Journal is to warn inventors of this sort, and frequently they are genially argued with.

One gentleman had a powder, the composition of which he declined to disclose, which on being mixed with water turned it into motor spirit. At least, so he said. Another proposed base was the grease skimmed off soup. Various constituents which have been proposed on account of their cheapness would no doubt be more or less efficient, but the enthusiastic promoters overlook the fact that if they once came into use to any extent the advantages would disappear as the price would at once soar upward.

Black Beam to Obscure the Moon.

In the process of argument some interesting scientific information is given, as for instance:

Suggestions are also frequently received in connection with colored searchlights. But color cannot be imparted to a beam, as by passing it through a color screen, without reducing its intrinsic brilliancy. Color is, in fact, obtained by a process of subtraction from the total light. At great distances all the brilliancy possible is required for effectiveness, so that colored beams are of no value for general purposes. Flame arc lamps for searchlights give colored light, generally slightly yellow, but this source of light is too large for the efficient optical projection of a parallel beam, and a parallel beam or one nearly approaching parallelism is essential in order to reach the great distances involved. The most remarkable proposition of all in connection with searchlights is perhaps that of a "black beam," whatever that may mean, for obscuring the moon!

Another favorite subject with inventors is the "relay shell"—a shell acting as a small gun discharged in midair and expelling a smaller inner shell, the object being to obtain an increased range, which has been supposed by some to be the principle of the long-range gun with which the Germans have bombarded Paris. As to that the article says:

The objections to this idea are twofold. First, it appears from elementary dynamical considerations that the energy of the relay propellant charge would be shared between the outer and inner shells in the inverse ratio of their masses, so that unless the inner shell were unduly small, a very large proportion of the propellant charge would be wasted. Secondly, a shell in flight does not point directly along its trajector, but makes an uncertain angle with it, especially near the highest point, where the inner shell would be discharged, so that accuracy of aim would be impossible. Generally speaking, it may be said that any scheme which seriously reduces the bursting charge of a shell must offer some very remarkable advantages before it can be considered promising.

Many of the inventors are absolutely impervious to argument or explanation, and are always dissatisfied with the treatment they receive. In this respect they contrast unfavorably with a foreigner who submitted an engine which would not work, and who wound up the correspondence with thanks and the admission that he was "completely cured" of his idea.

WHAT CANADA HAS DONE

To Help Feed the Armies and Civilians of Our Allies

Baron Rhondda's last message to Canada before his death: "Dominion Day is a fitting occasion to express, on behalf of all those responsible for food administration in the United Kingdom, gratitude to Canadian men, women and youths for the way in which they have decreased their consumption of essential foods and increased production."

Net exports from Canada of beef have been increased by nearly 75,000,000 lbs. per annum, an increase of 6,795 per cent. over the average net exports for 1910-1914.

Net exports of pork have been increased by 125,000,000 lbs. per annum, an increase of 571 per cent over a five year pre-war average.

Before the war, Canada was importing butter at the rate of 7,000,000 lbs. annually. This country is now producing enough butter to meet domestic requirements and, in addition, is exporting at the net rate of more than 4,000,000 lbs. per annum.

It is estimated that Canada exported at least 25 to 30 per cent. more wheat during the last twelve months than could have been exported, had it not been for the efforts for conservation and organization of this country's resources.

By standardization of flour and lengthening of the extraction in milling, a saving of 20,000 barrels of flour per month is being effected.

Conservation measures and voluntary saving in the homes have reduced Canadian consumption of flour from 800,000 to 600,000 barrels per month, as compared with pre-war consumption. This means a saving at the rate of 2,400,000 barrels per year, or, counting the saving by lengthened extraction of milling, of 2,640,000 barrels per year. This is equivalent to saving of nearly 12,000,000 bushels of wheat.

Conservation efforts in Canada are releasing meat enough to provide the ration for it is estimated, at least 500,000 soldiers.

Canada is now saving sugar at the rate of more than 100,000 tons annually, as compared with consumption a year ago. Very large quantities of edible fats are also being released, out of normal consumption, for export.

Nearly 800 cars of foodstuffs have been saved from total or partial loss through spoiling.

An amazing reduction in waste is shown by reports to the Canada Food Board from municipal officials in all parts of the Dominion.

Profiteering has been greatly diminished and excessive profit-taking is being stopped. For example, flour sold at $14.50 per barrel in the spring of 1915, whereas the farmer had received only $6.93 for the wheat used therein. In the spring of 1918 the price of flour had been kept down to $11 per barrel, while the farmer had received $8.32 for the wheat used therein.

German's Man-Power.

Many and varied have been the theories regarding Germany's man-power.

One theory is that, for twenty years before the war, Germany falsified her population statistics, thereby throwing dust in the eyes of the world. Hindenburg is supposed to have imparted this official secret to an American lady in 1913, declaring that Germany's population was not 65,000,000, but 90,000,000. But this hardly seems likely, and the existence of the odd 25,000,000 Germans is very problematical.

A more plausible solution of Germany's fighting might lies in the preamble to the Mass Levy of 1916, by which every male German from the completion of his 17th year to the completion of his 60th year is liable for some form of service to the Fatherland.

Twelve million Germans are reckoned to have been mobilized since 1914. Of these, about half must have been put out of action, leaving six millions, plus the resources of Austria, Turkey, and Bulgaria, still in the field against us.

Some 9000 tractors and tractor-ploughs have been ordered in America for British use.

A Combination Of Materials

Here is the chance for a combination of materials in a most effective fashion. The sleeveless smock is developed in white heavy linen and a bright plaid is used for the sleeveless and pleated skirt. McCall Pattern No. 8460, Girl's Sleeveless Smock or Middy Dress. In 6 sizes, 4 to 14 years. Price, 15 cents.

An interesting design for combination of materials. Developed in satin and serge, it is both smart and practical. McCall Pattern No. 8489, Ladies' Dress. In 6 sizes, 34 to 44 bust. Price, 25 cents.

These patterns may be obtained from your local McCall dealer, or from the McCall Co., 70 Bond St., Toronto, Dept. W.

AN AMAZING ADVENTURE.

How Two British Airmen Escaped From the Enemy's Territory.

Reuter's special correspondent with the American army in France telegraphs:

Two British airmen have just achieved an adventure which must seem incredible to those who are only acquainted with conditions in other parts of the line. They were returning from a bombing expedition when their machine was disabled by anti-aircraft fire, and they were forced to make a landing in German territory.

In order to avoid observation, they trusted to the meagre light of the moon to effect a landing, but their caution almost proved their undoing, as they crashed into a quarry, which, however, had the advantage of completely concealing their machine. Only slightly injured, they started at once towards the German lines, running most of the way, their only chance being to reach them before daybreak. The distance proved to be over twenty miles, in the course of which they had to cross a river, apparently the Seille, a tributary of the Moselle. One of them swam the river three times, once to ascertain the conditions on the further bank, and returning to bring his companion over.

On reaching the enemy communication trenches they had several breathless escapes from discovery, but by extreme adroitness and good fortune they succeeded in getting to the front trench, and crawling through the barbed wire into No Man's Land, in which, in this part of the line, considerable vegetation still flourished.

In creeping under a hedge for shelter they unfortunately attracted the attention of a German sentry, who fired several rounds in their direction. Luckily, he seemed almost as scared as they were, for they remained unhit.

They spent the day in the thick growth beneath a hedge, one watching while the other slept, and when darkness fell made their way without further adventure into the French lines.

Convenience in feeding should be the main object in locating the silo, but one should always pay attention to the direction from which extremely cold winds will come.

England Oblige.

When he was just a tiny little lad,
He'd spend hours in the mullioned gallery
Dreaming about the pictured panoply
Of his great forebears: grim Lord Peter clad
In shining mail; Lord Percival, who had
Plumes, won at Naseby; young Sir Willoughby,
Painted as ensign—he was lost at sea;
And gay Sir John, who fought in Highland plaid.

"When I'm big I'll go fishing too," he'd say;
And now, his wish fulfilled, he sleeps at rest,
In Picardy, the V.C. on his breast.
His Colonel wrote: "Lord Julian was so gay,
Such an example of brave hearted grace,
He honored England and a fighting race."

GIRLS! LEMON JUICE IS SKIN WHITENER

How to make a creamy beauty lotion for a few cents.

The juice of two fresh lemons strained into a bottle containing three ounces of orchard white makes a whole quarter pint of the most remarkable lemon skin beautifier at about the cost one must pay for a small jar of the ordinary cold creams. Care should be taken to strain the lemon juice through a fine cloth so no lemon pulp gets in, then this lotion will keep fresh for months. Every woman knows that lemon juice is used to bleach and remove such blemishes as freckles, sallowness and tan and is the ideal skin softener, whitener and beautifier.

Just try it! Get three ounces of orchard white at any drug store and two lemons from the grocer and make up a quarter pint of this sweetly fragrant lemon lotion and massage it daily into the face, neck, arms and hands.

Air-Raid Raiment

Whether the Hun airmen pay us a visit or not this moon, the enterprising salesman is never behindhand with his wares, says a London newspaper. At any big London store one can now purchase suitable raiment for air-raid evenings; and the most picturesque garb awaits the night when the moon is at her loveliest.

There is nothing really new about the idea, however, for a peep into the historic annals of old London shows that during the great year of English earthquakes—1750—there was a stampede out of London to avoid destruction. "Earthquake gowns of the most fashionable cut" were largely advertised and sold. "Earthquake cloaks for sitting out of doors all night" were in great demand, while the quack took advantage of the scare to advertise earthquake drops and pills.

Longevity of Trees.

Regarding the longevity of European trees recent information gathered by the German Forestry Commission assigns to the pine five hundred and seven hundred years as maximum, four hundred and twenty-five years to the silver fir, two hundred and seventy-five years to the larch; two hundred and forty-five years to the red beech, two hundred years to the birch, one hundred and seventy years to the ash, and one hundred and thirty years to the lime. The heart of the oak begins to rot at the age of three hundred years. A sequoia gigantea, felled in Calaveras county, California, had attained the age of three thousand years. It was three hundred and eighty-seven feet in height, and measured fifteen feet in diameter, one hundred and twenty-five feet above the earth. The Braburn yew, in Kent county, England, had attained the same great age.

Concerning Rhubarb.

The pieplant has a recorded history of over four centuries. It was first cultivated in the white walled gardens of Morocco and Algiers, amid fruits and flowers and fountains, and was brought thence by the Moors to Spain. Not until 200 years later did the plant really become known to English gardens, whence in due time it was brought to those of America to be employed first as a tincture, then as sauce, and to attain a final apotheosis in pie.

Rhubarb, apart from its usefulness, has values for its beauty. The giant Chinese variety, with its enormous leaves, is often employed by landscape gardeners to produce bold sub-tropical effects; nor do they always discount the charms of the more modest plant itself, of which the tall graceful spikes of white flowers and large leaves, deeply veined and stained, are as certainly handsome as the succulent stalks are palatable.

That logged-off and burned-off land in the lower Fraser Valley, B.C., should be seeded down by the Provincial Government, and thus provide pasture land and prevent bush and ferns from growing and adding to the fire menace, was a suggestion made by Mr. C. E. Hope of Langley to the New Westminster Board of Trade.

Sugar Certificates Necessary

Proprietors of public eating places throughout Canada have been notified that they must obtain a sugar certificate from the Canada Food Board by September 1st. A sworn statement must be filed with applications for certificates, stating amount of sugar used between January 31st, 1917, and December 31st, 1917. After September 1st it will be both illegal and impossible for public eating houses to obtain sugar without a certificate.

Constables Pledge Assistance

At the annual meeting of the Chief Constables Association, the following resolution was passed: "Moved by Chief Cuddy and seconded by Supt. Rogers, that the members of this association give every assistance in their power to the Canada Food Board."

Dr. Charles E. Saunders, of the Dominion Experimental Farm, Ottawa, in an interview at Saskatoon, said he had seen one or two wheat fields in the West that would yield forty-five bushels to the acre, and others that are too poor to even furnish grazing for cattle.

Chickens generally make the greatest gain when about three to four months old and the average birds make the most economical gains during the first two weeks of special feeding.