

### Cost of War Up to Date

Reaches Over \$44 a Head

For World's Population

THE cost of the war in Europe is so great that few persons are able to grasp the significance of the figures. It has been estimated that the amount which has actually been expended for war purposes by the various governments has reached about \$71,740,000,000 on February 1st last.

If the cost of the war were distributed equally among all the inhabitants of the globe, from the Eskimo in his smelly igloo, who has never heard of the war, to the African bushman, who is equally ignorant, every man, woman, and child would have to pay \$44. The population of the world is estimated at 1,623,000,000.

Here is another comparison: Suppose a philanthropist or a caliph, as D. Henry would have put it, living in the year Caesar was assassinated, 44 B. C., had in his coffers the amount spent in the European war and decided to give it away to poor people a silver dollar at a time. If the poor people kept coming at the rate of one a second and the caliph never took a second off to get a bite to eat or snatch a cat nap he would still be dealing out a dollar a second day and night in the present year and would be doomed to do so for 315 years more. As the silver dollars he would handle during the whole time would weigh about 2,100,000 tons he would be rather tired at the end of his task.

A man with the money spent in a single day for the European war in his pockets could ride in a taxi to the sun and back, paying 50 cents a mile, and have \$15,502,600 left to tip the driver. That is not such a large tip as you might think either, for the journey at the rate of 20 miles an hour would take 1,063 years—that is, until 2980 A. D. The estimated daily cost of the war is \$108,400,000. The distance to the sun is 92,897,400 miles. Enjoy yourself.

It is impossible to visualize the amount of constructive work which could be done with that seventy-one billions. One of the longest tunnels in the world, if not the longest, the Loetschberg tunnel through the Alps, in Switzerland, cost less than \$10,000,000 to build. That is under one-tenth of the daily war cost to the Allies and Central Powers. The cost of the Panama canal is being spent every five or six days by the Allies, or every thirteen days by Great Britain.

The Teutonic powers are not spending as much money as the Allies; in fact, their expenditures have been placed at about half those of their opponents, but even a day's cost of the war to the Teutons is reported to have increased the life of the guns twenty times, and many projectiles are also hardened with molybdenum as well as a great deal of the armor plate which was formerly hardened with tungsten or vanadium. It is estimated, too, that the amount of molybdenum required to harden steel is only about one-half to one-third the amount of tungsten which is necessary to give the same result. Curiously enough, molybdenum is used also as a stabilizer in some high explosives, smokeless powders, and to make a dense smoke in the location bombs which are fired previous to the firing of the projectile. It is used in many chemicals and in dyes for leather, rubber, silk, as a disinfectant, for fireproofing, in some cases in place of platinum, while in electric lights it has replaced other metals which were previously used for the support of the filament. The output of Canada at the present time is perhaps the largest in the world.

### Molybdenum.

Molybdenum is a substance which is playing a part in the present war for both the Allies and the Germans. Used in hardening the steel which is used in the riding of the big guns, it is reported to have increased the life of the guns twenty times, and many projectiles are also hardened with molybdenum as well as a great deal of the armor plate which was formerly hardened with tungsten or vanadium. It is estimated, too, that the amount of molybdenum required to harden steel is only about one-half to one-third the amount of tungsten which is necessary to give the same result. Curiously enough, molybdenum is used also as a stabilizer in some high explosives, smokeless powders, and to make a dense smoke in the location bombs which are fired previous to the firing of the projectile. It is used in many chemicals and in dyes for leather, rubber, silk, as a disinfectant, for fireproofing, in some cases in place of platinum, while in electric lights it has replaced other metals which were previously used for the support of the filament. The output of Canada at the present time is perhaps the largest in the world.

### How the Horsely Bites.

When a horsely alights on a horse, he walks around looking for a tender spot, and this he finds with his hairy feelers. Then he cuts a hole with the scissors on each side of the central tubular tongue. An ordinary lead pencil cannot be sharpened to a point without sharpening the lead. So it is with the tubular end of this tongue-like extension of the horsely. Nature has provided it with barbed, piercing "derrick ropes." The fly inserts these sharp points into the horse and then pulls back on them. The barbs hold and the fly's tongue is forced down into the horse's flesh. But if the hole has already been made, then it is not necessary for these elaborate tools to be taken from the sheath in which they are placed within the tongue or proboscis. The blood is sucked up by the tongue in practically the same way as by other forms of flies.

### Soap Bubble Portraits.

Professor Boys, of England, experimenting with bubbles, obtained some very large ones, which in the sunshine changed colors so beautifully that he conceived the idea of using them as backgrounds for photographs. The large bubbles were blown with an ordinary bellows. The soap solution was heated and a large-mouthed funnel was dipped into it. The bellows, connected with the funnel, was then worked very gently. Bubbles with as great a circumference as two and a half feet were easily obtained.

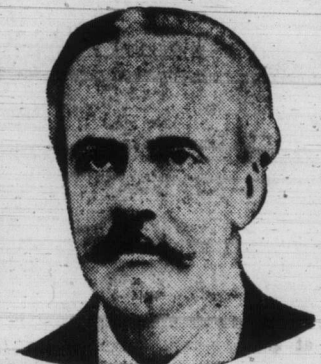
### Appeal to the Americans

Made by Arthur Balfour

Is of Unusual Strength

NOTHING more un-American could have been found in the Anglo-Saxon world than Hon. Arthur Balfour, and for that very reason he appeals most strongly to the American people. Cosmopolitan in intellect, he is in person the embodiment of the old-fashioned English "gentleman." In politics he is trusted and liked by all parties, including the Irish. He has never sought popularity; having turned his back on Fame, he seems almost irked by her pursuit. A natural aristocrat of mind and heart, he is a socialist in courtesy. He has remained plain Mr. Balfour, and is so much the stronger with all sections of society. (It is a great thing to be able to afford not to be a Duke.) He is gifted with a satiric humor, and lets slip his shafts of wit with a certain fatigued courtesy, himself scarce troubling to look whether he has hit his mark. If as a politician he has a fault, it is probably that he is too much of a philosopher to take seriously the "game" which the pushful worldling plays with a deadly earnest. But this great crisis will have been a stimulus to his imagination, starting the dreamy giant into an energy which the greatness of the hour demands. The need is of a man calm in crisis and unfused in victory.

A writer gives the following instance of this imperturbability. It was at the time of the historic crisis in the Irish agitation, known as the incident in "Committee Room 15" of the House of Commons. This was



HON. ARTHUR BALFOUR

the great moment of Parnell's political career. Mr. Balfour was then Chief Secretary for Ireland. The event took place late on Saturday night. The writer says: "It happened that on the Sunday morning I was invited to a breakfast party at a well-known country house. I knew that everybody would be greedy for the news and provided myself with all the Sunday papers. Arriving shortly before luncheon, I distributed the newspapers, which were seized upon and devoured by eager statesmen. Mr. Balfour came down late. At once the paper was handed to the Chief Secretary, around whose head the storm had raged. At that moment the luncheon gong sounded. Waving the paper aside, Mr. Balfour turned to a lady, saying, 'Meantime, let us not be late for luncheon.'"

He is the most representative Englishman that Great Britain could have sent to America in this historic time, and the British Government has shown the same fine tact and judgment that it displayed a few years ago when James Bryce was made British Ambassador in Washington. Mr. Balfour has earned American gratitude, for on two critical occasions he has been the friend of the United States. It will be recalled that when Washington protested against Spanish misrule in Cuba an attempt was made by certain European powers to persuade the others to make a concerted protest against American interference with the right of Spain to govern her own colonies in her own way. When the British Government was sounded, Mr. Balfour, then First Lord of the Treasury, was acting as Secretary of State for Foreign Affairs in the absence of Lord Salisbury, the Premier. Mr. Balfour rejected the proposals and notified Washington that Great Britain would not adopt any policy which might be construed as unfriendly to the United States. With the British out of it, the plan fell through.

Mr. Balfour had been equally friendly during the Venezuelan controversy two or three years before the Cuban crisis. In an elaborate speech in the House of Commons he reminded his country that England had joined with the United States in the protest against European aggression in South America when President Monroe formulated his famous doctrine. He explained that Great Britain had no intention of extending its dominions on this side of the ocean. He said that America and England had a common duty to perform and a common office to fulfill among the nations of the world. He said further: "The time will come, the time must come, when someone, some statesman of authority even more fortunate than President Monroe, will lay down the doctrine that between English-speaking peoples war is impossible."

His speech allayed British irritation and made it easy for a peaceful settlement of the dispute. It is evident, therefore, that no better agent of the British Government could have been selected than this statesman.

### Round Topped Tables.

A method for constructing round, built-up table tops has been invented that gives them the appearance of being cut from solid material.

### NOW ABOUT POTATOES

Grow Some and Keep Down the High Prices.

TOMATOES ALSO A GOOD LINE

But All Danger of Frosts Should Be Passed Before Tender Crops Are Put in the Ground.

(By S. C. JOHNSTON, Vegetable Specialist, Ontario Department of Agriculture, Toronto.)

Some of our vegetables are very tender and should not be planted until after all danger of frost is over. It must be remembered that because the soil is ready to receive the plants it is not absolutely necessary that the grower should set the plants out. Potatoes planted out between 24th May and even the first of June will give excellent results. Tomatoes may be set out after the 6th of June and good returns expected, as some seasons a severe frost destroys many tomato plants as late as June 6th. Vine crops such as cucumber and squash may be planted after all danger of frost is over.

POTATOES. Potatoes are one crop which may be planted on land which is considered to be in a very rough condition. Possibly there is no better crop to be planted on land which has been in sod for a number of years. Medium-sized tubers of good quality should be secured and they should be cut so that there are at least two eyes in each piece or set. It is a good plan in a small garden to have the soil prepared fairly well, then cut the seed and commence planting. Furrows may be made with the hoe about six inches deep and two feet apart. The sets may be placed twelve inches apart in the bottom of the furrow and should be covered with two inches of soil. This will leave the young plant more or less in a trench. As the plants grow the soil will be gradually dragged up and the trench will be filled. It will be necessary to cultivate the soil between the rows so as to keep down weeds, and at the same time soil should be gradually drawn up to the tops in sufficient quantities so that the growing roots will not be exposed to the sunlight, which will cause them to turn green and be of inferior quality. If an early variety has been planted and a vigorous growth has resulted it is possible that some may be fit to dig in August. By removing some of the soil from around a hill with the hand one can tell whether they are fit to dig. If the potatoes are grown for winter use they do not need to be dug until quite late in the fall. The tops will die down at the first frost, but it is absolutely necessary that they be dug immediately. They should, however, be dug before there is any severe frost.

TOMATOES. The tomato is one of the most popular vegetables either fresh or in a preserved condition. It may be grown quite easily in the garden. The better practice with tomatoes is to purchase the plants ready for transplanting rather than attempting to grow these plants if one has not had experience in handling a hot-bed. Plants having a large root system are best, and the stock in any case should at least be the size of a lead pencil. The soil should be thoroughly prepared before planting time, possibly a crop of lettuce or radish may be taken from the ground, but it is always advisable to have plenty of manure incorporated in the soil. A shallow hole may be made with the common hoe to insert the roots of the tomato plant. These roots should be thoroughly watered so that the soil will cling close to the roots when they are set out in the garden. The plant should be set fairly deep and the earth should be firmed around the roots. If the season is dry and hot, water may be poured around the plant in order to facilitate growth. These plants may be set two feet apart if they are to be trained on stakes and kept from covering a large space in the garden. These stakes should be preferably six feet long, two inches wide, and one inch thick. They may be driven into the soil a few days after the plant has been set out and the plants tied up to the stick with a piece of twine or cotton in such a manner that the tie will be directly under the leaf. As the plant develops size in front of each leaf a slender growth called a side shoot will appear. These must be removed by pressing them out with the thumb when very small. Four or five ties will be necessary to support the plant. As a result of the staking fruits of a superior quality will ripen earlier than those grown on the ground.

CELERY Celery may be grown in many garden soils if they have been heavily dressed with manure. For the backyard gardener it will be much better if the plants are secured ready for setting out about the 24th of May. All the plants should be set on the level from six to eight inches apart in the row and from two feet to thirty inches between the rows. It will be found necessary to water celery more than any other crop in the garden, and the soil between the rows should be stirred constantly. In the fall when the celery has reached sufficient height it will be found necessary to blanch it. Possibly the best method being to stand twelve inch boards against the rows of celery, holding them in position with stakes at each end. In from ten days to two weeks the celery plants will have grown considerably, and owing to the exclusion of the light will have become fairly well whitened, which improves the quality. The celery plants should be used as soon as possible after blanching. Other methods of blanching celery are the drawing of earth up around the plant gradually, commencing when the head of the plants are about four inches above the ground. Brown paper is sometimes tied around each individual head.

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## The Revolution in Russia

AFTER an absence of a little more than three months, Mr. George Bury has just returned from Russia, which country he visited at the request of the British and Russian Governments in connection with transportation.

Mr. Bury was accompanied throughout his trip by Mr. W. H. Winterrowd, Assistant Chief Mechanical Engineer of the Canadian Pacific. Mr. Bury and Mr. Winterrowd travelled from London to the north of Scotland, from where they were carried to Norway by a British destroyer. They proceeded through Norway, Sweden and Finland to Russia.

Mr. Bury states that his experience gained by close personal contact and association with Lord Shaughnessy enabled him to make recommendations which were accepted by the old Russian Government as well as by the new, who are now putting them into force with great vigor.

"Russia," he says, "is, of course, an immense country. It has a population of 176 million people. The last time they took the census the papers had to be printed in seventy-two languages, or dialects.

"In Russia I travelled from a point where I saw reindeer caravans to a point where I saw caravans of camels—that is, from Lapland to the Caucasus.

There is no doubt that after the war Russia will have to build several hundred thousand miles of railway. Canada has ten times more railway mileage per unit of population than has Russia. Then again, Russia made the mistake of patterning her railway transportation after that of Europe rather than America. Traffic in Russia moves vast distances in great bulk. The country lends itself to low grades and easy curvature. If that great country is to achieve the destiny in store for her she will have to come to the large train and large car, because those two factors make for economical transportation, and economical transportation is essential if a producing country of wide distances is to hold her own in the markets of the world.

"Had Russia been equipped with railway transportation, say as in Canada, she would have been able to have played a much greater part in the war.

"The impression gained during my two months stay in Russia is that they are a brave, self-sacrificing, kind, and capable nation. The educated classes are remarkably well informed and I came in contact with some of the really big men of the world.

"It happened to be in Petrograd during the revolution and saw perhaps as much of it as anyone. The casualties in Petrograd were heavy as were they



GEORGE BURY, Who has just returned from Petrograd.

have been done and much has been said of the mistakes, mistakes inseparable from any undertaking and but to be expected in an undertaking that dwarfs anything in history, authentic or mythical.

"Everywhere we travelled in Great Britain evidences of sacrifice, willingly made, were visible.

"Our past mode of living is at an end for some time and we will have to come down to a more simple form and economical conditions will compel the elimination of waste.

"The trade possibilities with Russia after the war are illimitable and those nations who will study the needs and the Russian character will succeed. Up until the time of the war it would appear that the Hun appreciated the possibilities of Russia and the trade statistics of that country show what our enemies accomplished.

"One has to travel around the world to see how well off we Canadians are. The Canadian soldiers covered themselves with glory in the recent advance. They took a strong position which had been tried twice before by other troops, and their deeds were in the mouths of everyone in London."



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