



Effect of Big and Little Shells

The destructive power of the three-inch shells used by the French light field gun is greater, in trench fighting, than is that of the mammoth projectiles from the great German howitzers. The latter, according to a press despatch from the front, seldom kill more than one or two men. On the other hand, with the small French shells, a heavy bursting charge is employed, and although the fragments are small, they fly with such force that they make fatal wounds and even cut into the wood of rifle stocks. "I observed the body of one German," says this despatch, "whose back had been pierced with a bullet about the size of a shell which had burst close to him. These particles were as evenly spread as the charge of a shotgun. German wounded and captured Germans have told me that this French shell fire was so hellish that no man escaped except by a miracle."

On the other hand, while big shells will play havoc with buildings or a paved street, when they burst in soft ground they are not dangerous. Most of the battlefields of France are on muddy fields in which big shells make a crater about forty feet in circumference and five or six feet deep. Their effect is chiefly upward and casualties are so rare as to be considered freaks. But, while they do not kill many their moral effect is great. The explosion of a large shell produces a zone of shock of wide radius which is capable of bowling over well nigh every one within its compass and the after effects linger for days and weeks.

A staff officer was near such a shell when it exploded. It rendered him unconscious. He was blind for sometime, deaf for two weeks and suffered from loss of memory for over a month—and all this without any surgical wound.

Destroyer Damaged;
Seven Vessels Lost

London, July 1, 7.55 p. m.—The torpedo boat destroyer Lightning was damaged last night off the east coast by a mine or torpedo explosion. She is now in harbor. Fourteen members of the crew are reported as missing. Announcement that the Lightning had been damaged was contained in an official communication issued by the British admiralty tonight.

The Lightning was built in 1895. She was a vessel of 220 tons, and her armament consisted of one 12-pounder and five 6-pounders. In times of peace her complement was fifty men.

London, June 30.—The British steamer, Scottish Monarch, which sailed from New York for Manchester June 16 with a cargo of sugar, was torpedoed and sunk yesterday by a German submarine. The steamer's crew of 36 men took to the lifeboats.

The captain and 19 men were picked up near the Hook Point lighthouse, not far from Dunmore Harbor, Ireland, and were landed at Dunmore. Heavy seas were running at the time.

The Scottish Monarch was 400 feet long and was of 5,043 tons gross. She was built in 1906 and was owned by the Monarch Steamship Company of Glasgow.

The Scottish Monarch arrived here in ballast on December 24, 1914, after a passage which one of the officers of the vessel referred to as a "bouncing voyage," on account of the buffeting which the vessel was subjected to in the stormy weather which prevailed.

The steamer loaded stores for the admiralty and left for England on Jan. 6. She was a fine steamer and greatly admired.

London, July 2, 12.33 a. m.—The Italian ship Sarmone, timber laden, was torpedoed with out warning five miles from Castletown, Bear Haven, Ireland. Two of the crew were killed on the spot and several were wounded or missing. Seven were saved.

Word was received later from Castletown, Bear Haven, that nine of the Sarmone's crew were drowned and two others died of injuries. The mate

is the only officer among the nine survivors, two of whom were wounded.

The Sarmone sailed from Bunbury on Feb. 21 for London. She was a vessel of 2,000 tons gross and was built in 1882.

London, July 1.—The British steamer Lomas, bound from Argentina for Belfast, with a cargo of corn, was sunk by a German submarine, Wednesday afternoon, sixty miles west of the Scilly Islands.

The submarine first fired two shots, presumably as a summons to haul to, but the second shell struck the steamer, killing the second officer. The crew took to the boats, and were picked up by a Belgian trawler and landed at Milford Haven.

The submarine sent the Lomas to the bottom by a torpedo and shell fire.

The Lomas was of 3,045 tons gross, her length being 325 feet. She was built in 1898 at West Hartlepool and was owned by the Buenos Aires and Southern Railroad Company of Hull.

The Norwegian ship Cambuskenneth, which sailed from Portland (Or.), Feb. 9, with a cargo of wheat valued at \$171,380, for Liverpool or Manchester, was sunk today by the German submarine U 39, by gun fire, 20 miles south of Galley Head, on the Cork coast.



The submarine signaled her to halt. Then it was asserted that there were a number of Germans among the ship's crew and eight men had the novel experience of being rowed to the submarine and later disappearing under the sea with her while their mates were left floating in the ship's boats. The latter, numbering 13, were landed at Galley Head this morning.

The Norwegian steamer Gjeso, of 1,094 tons gross, also was sunk by a German submarine's torpedo today. The crew was landed at North Shields.

The Norwegian bark Kotka was sunk today off Fastnet by the gunfire of a German submarine. Twelve men of the crew were landed at Queenstown after being six hours in lifeboats. The Kotka sailed from Stockton (Me) May 5 for an English port.

The Norwegian steamer Marna of Mandal, Norway, bound for Leith with a cargo of pit props, has been sunk by a German submarine off Halsund, according to a Christiania report.

Probable Charges of Next
Eighty Years

William Hayes Ward, formerly editor of the New York Independent, who has reached the fourscore mark, writes in his old paper of the changes wrought in the last eighty years and of the probable changes of the next eighty. He believes, amongst other things, that new sources of heat will take the place of coal. There are, he says, "possible sources of heat in plenty going to waste. The transport of coal is bulky and burdensome, and heat can be carried cheaply by wire as electricity, if we could only get it on the wire in some convenient way. Tides, winds, the useless heat of summer in the tropical deserts will one of these days be stored up to be used in our winters. Why not learn one of these days to warm a house with a windmill? Archimedes set hostile galleys on fire in the harbor of Syracuse with a combination of mirrors, and better ways may be found to concentrate and transport to Europe the superfluous heat of the African deserts. But there may be boundless sources of heat nearer at hand, waiting discovery. Every chemical combination stores heat which might be released by direct dissociation, or as radium has shown us, by the reduction of an element to one of less complexity by the loss of some of its electrons. It is not inconceivable that we may learn how with the disintegration of a substance warmer than a walnut to keep a house warm all winter."

Mr. Ward, despite the present world-wide war, sees the end of all war. "With ten years," he says, "I believe that war will have ceased to curse the nations; it will have died of its own enormity. The nations of the earth, now battling or now at peace, will have agreed that disputes between nations shall and must be settled without fighting, and any nation that dares to attack another will be surmounted by main force. Then will follow the decades of peace in which the ravaged countries will recover their losses in population and wealth, and find means and energy

for new discoveries, new inventions, new devices for the benefit of the people, new advance in arts and literature, and the creation of a nobler world. Then all nations will be neighbors inviting friendship, their border fortresses rusty and rotten, their tariff walls forgotten, their limits traversed freely by flight or flood, for travel or commerce, without fear or jealousy."

Most Violent Bombardment
At Dardanelles

London, June 30.—A Rome despatch to the Daily News quotes the correspondent of the Piccolo as sending this message from Constantinople via Sofia:

"I have just received authentic news that the action of the Anglo-French fleet in the Dardanelles has been resumed with great violence and is meeting with important success."

The Mytilene correspondent of the Times sends the following:

"The British torpedo gunboat Hussar on Saturday bombarded the ports of Chesme, Lidia and Agiella, opposite Chios, destroying some Turkish property, petroleum depots and small vessels."

Call Comes to Bulgarians to Leave
London

London, July 1, 8.17 p. m.—Bulgarian reservists in London were served with a notice today to gather at their respective regiments so as to know where to report immediately in the event of being called to the colors.

At the Bulgarian consulate it was said that the notification was only a formality necessitated by a change of regimental depots.

Only 22 Deaths of Inoculated Men
From Typhoid

London, July 1, 5.22 p. m.—Remarkable evidence of the efficacy of inoculation against typhoid was furnished by Harold J. Tennant, parliamentary under secretary for war, in the house of commons this afternoon.

In the British Expeditionary Force in France, he said, there had been only 827 cases and 128 deaths up to May 27. Of this number 508 cases were persons who had not been inoculated, and 106 of these died. There were only 22 deaths among the 368 men inoculated who, despite inoculation, contracted the disease.

The Hawk and the Crows

Day after day and week after week as I look through the big, open barn door I see a marsh-hawk beating about low over the fields. He, or rather she (for I see by the greater size and browner color that it is the female), moves very slowly and deliberately on level, flexible wing, now over the meadow, now over the oat or millet field, then above the pasture and the swamp, tacking and turning, her eye bent upon the ground, and no doubt sending fear or panic through the heart of many a nibbling mouse or sitting bird. She occasionally hesitates or stops in her flight and drops upon the ground, as if seeking insects or frogs or snakes. I have never yet seen her swoop or strike after the manner of other hawks. It is a pleasure to watch her through the glass and see her make these circuits of the fields on effortless wing, day after day, and strike no bird or other living thing, as if in quest of something she never finds. I never see the male. She has perhaps assigned him other territory to hunt over. He is smaller, with more blue in his plumage. One day she had a scrap or a game of some kind with three or four crows on the side of a rocky hill. I think the crows teased and annoyed her. I heard their cawing and saw them pursuing the hawk, and then saw her swoop upon them or turn over in the air beneath them. As if to show them what she could do on the wing she was beyond their powers. The crows often made a peculiar cawing and cackling as if they enjoyed the sport, but they were clumsy and awkward enough. One day she came down upon them from a point high in the air, like a thunderbolt, but never seemed to touch them. Twice I saw her swoop upon them as they sat upon the ground and the crows called out in half-sportive, half-protesting tones, as if saying, "That was a little too close; beware, beware!" It was like a skillful swordsman flourishing his weapon about the head of a peasant; but not a feather was touched so far as I could see. It is the only time I ever saw this hawk in a sportive or aggressive mood. I have seen jays tease the sharp-shinned hawk in this way, and escape by retreating blows by darting into cedar trees. All the crow tribe, I think, love to badger and mock some of their neighbors.—John Burroughs.

FARMER AND CROW

Thinking Bird Is Not Welcome Regardless of His Virtues

On the Pacific Coast a heated discussion raged around the crow, that port, competent bird who has outlived the guns and traps of man for many, many years. Opinions as to his merits and demerits were sharply in contrast, the farmer taking a firm stand against the ornithologist, each evincing for the other that degree of contempt that is always shown when science and casual observation clash.

The farmer, as a rule, is no bird lover, because his life puts him in a position where he notices the depredations of birds, and does not furnish him the opportunity of seeing the good his feathered visitors perform. He is naturally scornful of all theories which postulate that the bird pays his way by his destruction of pests. The crow dining on some parasitic bug, beetle or fly does not attract his attention as does the crow in the cornfield or elsewhere in the crops.

Against this the man of science brings a bill of fare of the crow, with statistics concerning the contents of the crow's stomach, all of which counts but little with the farmer, who knows what he sees with his eyes.

As an academic discussion there is perhaps little interest in the morality of the crow and his keeping of the commandments. His activities, whether they be good or bad, affect the farmer for the most part, and the farmer turns down his thumbs and demands the life of the crow. The farmer is the one who will suffer or profit in either event and as for the crow he is quite capable of looking after his own interests. He is a merry vagabond who finds his sustenance and joys everywhere.

A SHARP-EYED BOY

He Picked Out in Crowd Grandfather He Had Never Seen

"I don't know my own son. I am afraid I will never find him in this crowd, and I have been waiting eight years for this," complained an elderly man at the Montreal station as he looked searchingly about among the hundreds of immigrants who had just arrived. Just then a little child not more than four years old ran up to him, and, pulling at his coat, cried out: "Why here's grandpa." The child's mother was about to reprove him for speaking to a strange man when a stalwart Welshman just behind the child called out:

"Baby Jim is right. It is grandpa."

Thus was the re-union of the Morgan family consummated.

The elder man had left the old home eight years before when his son was but a lad of fifteen, and had been working in Ontario in an effort to raise the money to bring the rest of the family to Canada. He has had his share of hard luck, however, and the years passed without the object being attained. The son was prosperous enough in Wales to take unto himself a wife. For some years he worked as Mr. Lloyd George's gardener at the house which was burned by suffragettes.

The father finally prospered and sent the money to aid his son to come to Canada, bringing with him the wife and child which his father had never seen.

The elder Morgan had sent his picture home to England, and the little boy had been taught so carefully about his coming to see "grandpa" that his bright eyes were the first to notice the grizzled workman, who had aged so much that his own son barely recognized him.

CARE OF MILK AND CREAM

It is impossible to produce clean milk and cream unless the cows, stable, milker, utensils, and separator are clean.

To wash milk utensils use, first, cold water for rinsing; second, warm water containing a small quantity of good washing powder for cleaning; third, boiling water or steam for sterilizing.

Use a metallic strainer; it is practically impossible to keep cloth strainers sweet and clean and free from bacteria.

Skim the milk as soon after milking as possible, and cool the cream at once.

Skim a cream testing from 35 to 45 per cent.—the richer the cream the better it will keep. By skimming a rich cream, more skim milk is left at home for feed, and there is also a smaller bulk on which to pay express charges.

Do not mix warm, new cream with cold cream until it has been cooled. Keep the cans of cream in a tank of cold water until time of delivery. Wash the separator thoroughly after each separation.

Deliver the cream to the creamery or cream station early in the morning. Deliver the cream not less than three times a week during the summer, and twice a week during the winter.

Protect the cans of cream from the sun by covering with canvas or with a wet sack while en route.



COFFEE

As near perfection
as you can get in
this world.

CHASE & SANBORN

MONTREAL

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Patched Man's Head With Rabbit
bone

Paris, June 30.—One of the most unusual medical operations produced by the war was related to the Academy of Medicine today by Dr. Reinier. He told how he had substituted part of the shoulder blade of a rabbit for a piece of the frontal bone of a French soldier who had been shot in the head.

A DAILY THOUGHT.

If thou art worn and hard beset
With sorrow, that thou wouldst forget,
If thou wouldst read a lesson that
will keep
Thy heart from fainting, and thy
soul from sleep,
Go to the hills!—No tears
Dim the sweet look that Nature
wears.

—Longfellow.

Swoboda Likely to Get Freedom

Paris, June 30.—Charges of espionage against Raymond Swoboda, who claims to have been born in San Francisco, will be dropped, the Petit Parisien says, as no strong evidence of his guilt has been developed. The charge of being responsible for the fire aboard the steamship La Touraine already has been dropped. Witnesses who have been heard regarding accusations of espionage have failed to give testimony considered sufficient to establish his culpability.

Diseases of the Potato

There could hardly be a more timely or a more practicable, valuable publication at this moment than Circular No. 9 of the Division of Botany at the Experimental Farm, Ottawa dealing with "The Control of Potato Diseases," by H. T. Gussow the Dominion Botanist. With the contents of this circular every grower of the "solanum tuberosum" would profit by acquainting himself. It tells of the different diseases to which the potato is subject and of the preventives and remedies that can be successfully applied. Especially does it deal with seed potatoes, a series of precautions being given that should always be taken before sowing. Instruction is also furnished on methods that should be adopted to redeem infected land, on the early recognition of disease, on spraying for the suppression of the Colorado beetle and Late Blight, and on the storing of seed potatoes. How to use bi-chloride of mercury and in what quantity is explained. Stable manure should not be used for potatoes is the sound advice given, as it may engender a scabby crop, which can be averted by the use of fertilizers. When there is a lack of humus in the soil, an application of crumbled peat will be found beneficial. This will also retain moisture in light soils. Information is given on the preparation and use of Bordeaux mixture. The Circular, which can be had by application to the Publications Branch, Department of Agriculture, Ottawa, should have a wide circulation.