

advisedly; there is a difference between a blow and a push; we want a pushing propellant for our rifles, not a rending explosive. The rifle is a machine for the production of work, the motive power being the expansive force resulting from the combustion of the charge, and the useful effect, or work performed, being measured by the muzzle energy of the projectile. Using the Springfield rifle and service ammunition the penetration at ranges of 3,500 yards is about three inches in pine wood; energy corresponding to a penetration of one inch in pine is held to be sufficient to inflict a wound dangerous enough to put a man out of action. For reasons both humane and politic it is better to wound a man in action than to kill him. A steel plate half an inch in thickness can not be penetrated at any distance by our Springfield bullets. The time of flight for the Springfield bullet in traversing 3,000 yards is  $17\frac{3}{4}$  seconds.

Investigations have been completed to determine the charge and projectile for a rifle of smaller calibre than the present Springfield. It is the intention to use compressed and perforated cartridges, but as yet the powder-makers have not succeeded in producing a satisfactory powder, the desired velocity being accomplished by too great a pressure. This matter of a suitable powder is still under study and trial. The results obtained in France with the Lebel rifle point to a radical change in the manufacture of powder for small arms. The necessity and policy of learning all about the improvements and alterations in the character of the rifles and cartridges of Europe was never greater than now.

### Gleanings.

England's debt in 1816 amounted to \$4,500,000,000. The American War of Independence cost her \$605,000,000; the War of the French Revolution, \$3,005,000,000.

Military service has been increasing in unpopularity in England so rapidly since the adoption of short service that it is becoming a serious question as to how the army is to be maintained.

The Federal Council, suspecting that in the event of a Franco-German war Germany would violate the territory of Switzerland, has recommended to Parliament the adoption of a credit for the purpose of fortifying St. Gothard.

In a race between dogs (comprising pointers, setters, mastiffs, and a poodle) and cyclists, the pointer covered the distance ( $1\frac{1}{4}$  miles) in one minute and forty-five seconds, closely followed by the setters and mastiffs. The poodle was beaten by the leading bicyclist who took four minutes.

Considerable stir has been excited lately in Austria by the success of the petroleum borings in Galicia, and hopes are entertained that at no distant date the Austro-Hungarian Empire will be totally independent of a foreign supply of oil, and that the oil industry will be as important for Austria as it is for the United States.

By a recent order of the German War Minister, it is provided that those ecclesiastics whose age would render them liable to military service are to be enlisted as almoners and hospital attendants. Those who will follow a course of instruction for a period of four weeks in a military hospital will be called upon to pass a special examination at the end of the course.

With 343 ships in commission and 205 in reserve, England spent upon her navy in 1859 \$51,241,330, in 1888, with 256 vessels in commission and 122 in reserve, \$50,816,950. In 1863 England's wooden walls were represented by 43 line-of-battle ships in reserve; there are now but two left, while the armoured ships in reserve have increased from 12 to 39. This gives an excellent idea of the complete revolution which has taken place in naval construction.

While Capt. Hand, of H.M.S. *Royalist*, was walking on the shore at Samoa a German man-of-war boat gave chase to another containing some unarmed natives. They made for the shore and ran for the bush, whereupon the Germans opened fire regardless of the danger to Capt. Hand. Some unfortunate British subjects who have been bombarded by the German ships engaged in the blockade of the East African coast have lost their trade, and some of them their lives. Those able to get away are returning to India almost ruined.

The German War Department has just published, in accordance with one of the last wishes of the late Emperor William, a history in two volumes of Prussian flags since 1807. The work is intended as a kind of introduction to the history of the Prussian regiments themselves from the earliest times, which is in course of preparation. In the wars of 1864 and 1866 it appears that 90 flags were pierced by bullets; in that of 1870 there were 151. The flag of the 7th Infantry Regiment received 23 bullets at the battle of Mars-la-Tour alone. In the latter campaign 38 standard-bearers were killed flag in hand.

The Mannlicher magazine rifle is about to be adopted for the Belgian army.

A second all-steel armour-plate, ordered by the British Government from Messrs. Vickers, Sons & Co., Limited, of Sheffield, immediately after the successful trial of their first plate, was submitted to the customary tests on board the *Nettle* at Portsmouth. In this instance the plate was made rather harder, to see to what extent the hardness would make it resist shot better. Five shots were fired, three howitzer and two Palliser. The Palliser shot were broken up, and the howitzer were driven back against the bulkhead. The depth of penetration was considerably less than in the former plate, whilst the cracks were not more serious.



## TENDERS.

SEALED TENDERS addressed to the undersigned, and endorsed "Tender for Indian Supplies" will be received at this office up to noon of THURSDAY, 9th May, 1889, for the delivery of Indian supplies during the fiscal year ending 30th June, 1889, consisting of Flour, Bacon, Groceries, Ammunition, Twine, Oxen, Cows, Bulls, Agricultural Implements, Tools, &c., duty paid, at various points in Manitoba and the North-West Territories.

Forms of tender containing full particulars relative to the supplies required, dates of delivery, &c., may be had by applying to the undersigned, or to the Indian Commissioner at Regina, or to the Indian Office, Winnipeg.

Parties may tender for each description of goods (or for any portion of each description of goods) separately or for all the goods called for in the schedules, and the Department reserves to itself the right to reject the whole or any part of a tender.

Each tender must be accompanied by an accepted cheque in favor of the Superintendent General of Indian Affairs on a Canadian Bank, for at least five per cent. of the amount of the tender, which will be forfeited if the party tendering declines to enter into a contract based on such tender when called upon to do so, or if he fails to complete the work contracted for. If the tender be not accepted, the cheque will be returned.

Each tender must, in addition to the signature of the tenderer, be signed by two sureties acceptable to the Department for the proper performance of the contract.

The lowest or any tender not necessarily accepted.

This advertisement is not to be inserted by any newspaper without the authority of the Queen's Printer, and no claim for payment by any newspaper not having had such authority will be admitted.

L. VANKOUGHNET,  
Deputy of Superintendent-General  
of Indian Affairs.

Department of Indian Affairs,  
Ottawa, April, 1889.



## Mail Contract.

SEALED TENDERS, addressed to the Postmaster General will be received at Ottawa until noon on FRIDAY, 31st May, 1889, for the conveyance of Her Majesty's Mails on a proposed contract for four years, six times per week each way, between Metcalfe and Ottawa, from the 1st July next.

Printed notices containing further information as to conditions of proposed contract may be seen and blank forms of tender may be obtained at the Post Offices of Metcalfe, Leitham, South Gloucester, Greely, Billings' Bridge, Ottawa, and at this office.

T. P. FRENCH,  
Post Office Inspector.

Post Office Inspector's Office,  
Ottawa, 27th March, 1889.



## Mail Contract.

SEALED TENDERS, addressed to the Postmaster General, will be received at Ottawa until noon on FRIDAY, 31st May, 1889, for the conveyance of Her Majesty's Mails on a proposed contract for four years, six times per week each way, between Russell and North Branch, from the 1st July next.

Printed notices containing further information as to conditions of proposed contract may be seen and blank forms of tender may be obtained at the Post Offices of Russell, Marvelville, Kenmore, North Branch, and at this office.

T. P. FRENCH,  
Post Office Inspector.

Post Office Inspector's Office,  
Ottawa, 29th March, 1889.

## Outing.

THE MAGAZINE OF SPORT

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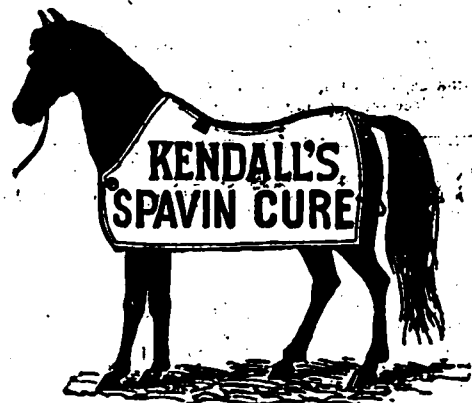
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Dear Sirs: I have always purchased your Kendall's Spavin Cure by the half dozen bottles, I would like prices in larger quantity. I think it is one of the best liniments on earth. I have used it on my stables for three years.

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Gents: I feel it my duty to say what I have done with your Kendall's Spavin Cure. I have cured twenty-five horses that had Spavins, ten of Ring Bone, nine afflicted with Big Head and seven of Big Jaw. Since I have had one of your books and followed the directions, I have never lost a case of any kind.

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