

Article

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Subject:

Something about War

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133 State Street, Boston.

Burlington, Vt., _____ 1900.

sent
The Independent
July 18/97

(Returned copy)

Letter to

Something about War—

~~Foster Coates, Esq.,~~

~~deterrent~~ New York World.

Dear Sir:

The ~~deterrent~~ influence of modern arms.

(1) How courage is affected.

Your letter is at hand. It is now a common thought regardless

of the spurs of religion, probably as active to-day as ever in history, and independent of the blessings attendant upon peace-makers and peace-seekers everywhere, that the modern improvements in arms, arrangement and methods of war will have, nay, has, rather, already had a strong ^{against war} deterrent effect upon all the civilized peoples and governments of the world.

It is said by one of our scientific thinkers that all anger-thought and fear-thought come from mental germs of abnormal growth, that they can be and should be torn up by the roots and cast away. I am of the mind ^{judging from passing events} that the day has not yet come for this; and that fear and anger will remain for some time, to be quite generally predicable ^{and of nations} of human souls. Certainly while fear continues, battle and war will excite it, as they always have done, and more and more will be the apprehension as the probability of persisting in the conflict increases.

The soldier cannot help seeing ^{of extreme danger} and knowing the facts, and even if he be brave enough to take desperate chances, or march to certain death, still his government, or the people back of it, will be unwilling to make the sure sacrifice of his life. (2) The Army Rifle... its power. The rifle now used in our regular army, named, I believe, the United States Magazine Rifle, was adopted in 1892. ^{31 of all} The weight of the weapon is nine pounds, having a calibre of ~~thirty~~ ^{thirty-one} inches. Its sight is ^{graduated} ~~arranged~~ and marked for a range of 1900 yards; but it can be fired easily 3000 yards. Its bullet has a weight of 220 grains. Its flight is swift and almost noiseless. The smokeless powder renders the place from which it starts impossible

H. S. HOWARD,

SOLE AGENT

SPELLERINE HOOF STUENING renders the place from which it starts impossible
WASHINGTON RED CEDAR SHINGLES
230 grains. Its flight is swift and almost noiseless.

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Dear Sir:

New York World.

Foster Coates, Esq.,

Letter to

Government School-War

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to observing enemies
of discovery. When it strikes the hardest wood its effect is several times greater than that of any rifle which we used in the late war. Think of those experiments *with this rifle* at our proving grounds, where block after block of pine lumber, each an inch in thickness, was added till there was an obstruction of four feet. These little, steel headed projectiles, sent from a gun a thousand yards away, easily passed through them all without injury to *themselves* ~~itself~~. Three feet of oak fared no better, while even iron plate $\frac{3}{4}$ inch in thickness suffered a like perforation.

I remember the grim effect upon my young heart when I first saw a riddled target and was asked by a companion how I would like to stand that racket.

and done a rattle
This modern firing is considerably worse. *Somehow* By observation it is found that *men's* arteries are severed as if cut by the lancet and the bones are comminuted as if dried and pounded in a mortar, and yet the bullets themselves receive little or no injury. *Our* ~~It~~ is a magazine gun and supplies ~~but~~ five cartridges at a time. This is the rifle with which a soldier may easily hold his aim and send 20 bullets against the target or adversary each minute. Should he desire to fire without aiming, the number of shots may be ~~nearly~~ *size* doubled. His only limit in destructiveness will be found in the ~~limit~~ *of ammunition* of the load which he can carry.

Should an enemy in close formation come near a company, say of not to exceed twenty men, *the members of that company* they could easily dispose of, by death and wounds, from eight to ten thousand *men* in less than an hour's time. It is not likely that just this arrangement could be made for ~~the~~ *over* twenty marksmen, but *I offer this* ~~it is~~ an object lesson to indicate the effects of this modern arm. With *an unharmed* ~~a~~ regiment *having this* armed with the present U. S. Magazine

of discovery. When it strikes the hardest wood its effect is several times greater than that of any rifle which we used in the late war. Think of those experiments at our proving grounds, where block after block of pine lumber, each an inch in thickness, was added till there was an obstruction of four feet. These little, steel headed projectiles, sent from a gun a thousand yards away, easily passed through them all without injury to itself. Three feet of oak fared no better, while even iron plate $3\frac{1}{4}$ inch in thickness suffered a like perforation. I remember the grim effect upon my young heart when I first saw a riddled target and was asked by a companion how I would like to stand that racket.

This modern firing is considerably worse. Somehow by observation it is found that arteries are severed as if cut by the lancet and the bones are comminuted as if dried and pounded in a mortar, and yet the bullets themselves receive little or no injury. It is a magazine gun and supplies but five cartridges at a time. This is the rifle with which a soldier may easily hold his aim and send 20 bullets against the target or adversary each minute. Should he desire to fire without aiming, the number of shots may be nearly doubled. His only limit in destructiveness will be found in the limit of the load which he can carry.

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BURLINGTON VT
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WASHINGTON RED CROSS BUILDING
BUREAU PATENT FLEXIBLE STAMPS
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Rifle, a regiment of a thousand men like the 3rd Maine, the 2nd Massachusetts, the 2nd Vermont or the 9th Indiana, whose prowess in action I ~~so often observed~~ ^{or knew of} ~~thoroughly intrenched~~, a skilful colonel would be able to hold his ground against any successive rushes which ten thousand men could make. With plenty of ammunition, a star-fort having its approaches properly earthcovered, ^{and its parapet guarded by such rifles} could not be taken by assault. Had ~~these~~ ^{Lee's} troops been thus armed at Fredericksburg, every man of ours who passed beyond the range of houses and approached the Marye Heights would have fallen. ^{the city -} Burnside could not, with his army, have recrossed the Potomac. ^{and}

(3) The Hotchkiss Rifle

I notice that the Hotchkiss rifle, a field cannon, has been much experimented with at our proving grounds, ^{and is in our service in both army & navy. Its trials} ~~at different ranges~~ ^{varied} ~~varying~~ from 100 to 4,000 yards. The weight of the powder in a charge is about two pounds and the length of the cartridge complete is 19 inches; the shell is steel. In firing for rapidity with accuracy at 1000 yards, ten shots were fired with but one miss. The ten rounds were fired in two minutes and 36 1/3 seconds. At one mile range were ^{five} ten shots again with but one miss, all in one minute and 33 1/2 seconds. This gun easily ^{sends} carries its projectile a distance of 5 miles.

What is called the 6-Pdr Maxim-Nordenfelt gun, or some slight modification of it, is ^{one made in the journals of the day} ~~doubtless~~ the one about which you inquire in your letter. We have had ^{it} since 1894 under trial. ^{so many} ~~firing~~ ^{thru} this gun with rapidity and accuracy, ~~of course our provers tried~~ different ranges.

They began with one sighting shot, then delivered ten shots without a miss. ^{from the middle of the target} The deviations were inconsiderable. This was accomplished in ~~2~~ minutes and 37 1/2 seconds. For one mile range three trials were allowed for the sighting, then ten shots quickly followed at the target and all hit. The calibre of this cannon is 2.244 inches. The estimated time is 20 rounds per minute or 65 rounds in three minutes.

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H. S. HOWARD,

SPETERINE HOOF STUFFING

WASHINGTON, RED CEDAR SHINGLES.

GENERAL AGENT

BUCKE PATENT FLEXIBLE STAMPS.

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BURLINGTON, VT.

H. S. HOWARD
SOLE AGENT
SPELTERINE HOOF STUFFING
WASHINGTON RED CEDAR SHINGLES

The German called the field pieces to which I refer, after making their own improvements, ^{upon them} "the model of '73 and '88, the calibre being 88 millimetres (3.3 inches)". During 1890 the Germans succeeded in progressing ^{still} further with these field guns and their carriages. The new gun is now denominated "the model of '91". They have secured elasticity and increased tenacity ^{of metal} ~~of metal~~, thus eliminating as far as possible, dangers from breakage and bursting, which of course always had immediate deadly effects upon their artillery men, ^{and could not help} causing wide-spread apprehension and terror. And again in their carriages and ammunition wagons they have secured greater lightness - ^{and are} ~~now in these respects~~ considerably ahead of the French.

^{(5) Smokeless Powder.}
The smokeless powder ^{appears to} ~~appears to~~ aid much both the French and Germans in gaining for themselves a prospective morale over a foe not so well furnished, ^{a foe} ~~that is~~ having only other kinds. It is interesting to observe the efforts made to have exploding shells give some plain signs ^{strengthening our efforts in the war to read the enemy's signal code.} of where they strike. The German artillerists, using the smokeless powder in their cannon, "throw 300 balls into the shell and in the interstices of these balls they introduce a powder whose composition is secret," - that is to say, thus far. The French can analyze, and so can our chemical experts. ^{new} ~~The explosion mixture is colored.~~

^{now} ~~It is said that~~ the impact and explosion of these shells can easily be detected ^{by a field glass} at a distance of three miles.

^{For} We will soon be abreast of other armies in such things as these, enabling the battery officers to measure length of range, and discover ^{for} points of danger and obstacles to be overcome. No one can exaggerate the effect of a battery thus equipped, after the range ^{shall be} ~~is~~ ^{in open ground} ~~ascertained~~, against infantry, cavalry or inferior artillery. Troops without

H. S. HOWARD,

SOLE AGENT

SPELTERINE Hoof STUFFING.

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BURKE PATENT FLEXIBLE STAMPS.

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The smokeless powder appears to aid much both the French and Germans in gaining for themselves a prospective morale over a foe not so well furnished - that is having only other kinds. It is interesting to observe the efforts made to have exploding shells give some plain signs of where they strike. The German artillerymen, using the smokeless powder in their cannon, "throw 300 balls into the shell and in the interstices of these balls they introduce a powder whose composition is secret" - that is to say, thus far. The French can analyze, and so can our chemical experts.

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Rayffe

cover so assailed must give way, or be practically annihilated.

(6) Rayffe Cannon

The French are carefully watching the German improvements; but they seem in some things to be on the lead. Their ~~Reffye~~^{Rayffe}-gun was a bronze breach-loader and served a temporary purpose about the close of their war with Germany and for a time afterwards. Then followed the Bange gun, a suggestive name ^{taking} with Mark Twain's pronunciation; it was a steel breach-loading piece, and had remarkable precision of fire, especially for the range of 7500 yards and less.

The piece could easily reach six miles with its projectile by sufficient elevation. Of course the clumps of houses, large public buildings, groves of trees, or large bodies of troops, could be brought under fire ^{at a distance of} from six miles and under. These pieces have had the usual fuse arrangement so that their shells could be exploded in the air at any chosen distances within their effective range. Striking against any wall, a hard substance, even before the time of the fuse ^{the} could cause an explosion. Noticing this, that a shell filled with a hundred or a hundred and fifty small balls, one can conceive of the murderous effect of a single missile bursting in the air just in advance of a body of cavalry. Besides ^{the} ordinary shell, this cannon fires another sort, filled with melinite; the accompanying powder charge gives the shell an extraordinary velocity and favors what we call enfilading fire, when ^{the} the projectile, instead of making a high flight, pursues its course near the ground touching here and there so as to break up a line or a column in its course. ^{of troops} The French have under consideration, perhaps by this time adopted, a new cannon called "the new campaign gun." This will be remarkable for rapidity of firing and the makers have somehow obviated the delay usually occasioned by the recoil of a gun. "In pointing, instead of being obliged, after each shot to bring the gun back to its position, the gunners need not move, because the recoil is completely suppressed."

(7) A new French Cannon

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even in these progressive times —

It is a wonderful discovery, ^{to our own} this mechanism applied to the carriage which holds it in place at every discharge.

8. Our own cannon.
Our little army is not behind hand in anything touching the modern guns for seacoast or field defense. We have already noted the Hotchkiss 3 inch gun for field artillery. ^{to also} We have ^{also} the 3.6 inch ^{having} model of 1891, which weighs 1181 lbs. the weight of the charge, a little over 4 lbs. of powder, and the weight of the projectile 20 lbs. Its muzzle velocity is 1550 " foot seconds", i. e. 1550 feet made ^{by the projectile} in one second of time on leaving the muzzle of the piece.

There are two other models for field artillery, one 3.2 inches calibre of 1885, and the other 3.2 inches ~~calibre~~ of 1890. The weight of the projectile for these two is 4 1/2 lbs. less than that for the model of 1891 and the weight of the pieces ^{considerably} each considerably less.

Our guns are
~~Our~~ siege ~~artillery~~, seacoast artillery with heavy guns of calibre 8 inches, 10 inches and 12 inches, and one mortar for the field, for the siege and for the seacoast, ranging from 6.6 inches to 12 inches have kept pace with the corresponding weapons of other nations. *They have done so*
in range, in appliances such as wagons and carriages, ^{all the} in material, in rifling and in attaining rapidity of fire. We have also all the improved sorts of powder, and our experiments, both in the army and navy are kept to the requirements of the times. ^{By} For study, industry and ^{inventive} genius our ordnance and artillery officers have made surprising advance ^{ment} and secured the respect of intelligent observers the world over. *(9) Our National Guard.*

Our great need ^{is} ~~is~~, however, the appreciation of Congress. I see that our national guard are about to receive the modern arms. That is what, in my judgment, should have been done by congressional provision long ago. Perhaps not so important that they should be always in the hands of the men, but they should have been in store for

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H. S. HOWARD, the men, but they should have been in store for
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Burke Patent Flexible Stamps. I see that our national guards are about to receive the modern arms
159 College Street.
Burlington, Vt.

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prompt distribution when the time of need ^{may} ~~shall~~ come.

Complicated breech-loading artillery ^{cannot be avoided} require intelligent artillerymen, and men of ^{managing} some training and experience in their profession. Therefore, so far as the artillery ^{a few} is concerned, batteries cannot be too soon organized, having in possession our latest models of field guns.

10. Automatic Pieces

The Maxim automatic machine gun at times may be made available for resisting a charge or repelling an assault. It will deliver 650 shots per minute with a ^{moderate} range of ^{one or two miles} and all this without requiring anything but ^{its own} support. The Gatling gun, too, a wonderful machine, has gained in rapid firing. It can ^{Today} easily give 800 discharges each minute and certainly no officer would risk an attacking column in the direct face of such guns. The only way to meet them would be by those we have ^{using} ~~considered~~ ^{been considering} of longer range and power enough to break their ^{on the assaults} cover and annihilate guns and gunners together. Such war ^{is cruelly magnificent, when there is} appears to have no opportunity for gallant conduct or any other ^{deaths} bravery than that which ^{faces} ~~contemplates~~ the almost absolute certainty of the ^{loss of life.}

(11)

Powder.

subject of

^{public} ~~Considering your second paragraph, touching the powder,~~ ^{an writer declares we could not fire all the guns of the Navy order for want of powder} I find that there are 48 U. S. naval vessels in commission at this hour, and they have of all kinds 429 pieces of artillery on board, varying from 4 to 20 guns. ^{available} Without doubt these cannon are of the best model and, as always in our navy, in prime order. ⁸⁰⁰ The weight of the charges of powder varied from 2 pounds to 200. ^{of course the weight of the charge varies with the weight of the} One specially large English gun in an English ship of war takes 176 pounds for every discharge. ^{projectile. Our largest naval gun is the 13 inch breech loader.} Suppose we make an average of 30 pounds to the piece. This, which is ^{for an example} large enough in all conscience, will give for a single discharge 12,870 ^{of all the pieces}

H. S. HOWARD,

SOLE AGENT

SPLETERINE HOOP STUFFING.

WASHINGTON RED CEDAR SHINGLES.

BUNKER PATENT FLEXIBLE STAMPS.

1886 COLLEGE STREET

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Turning to the inspection of the DuPont Powder Works, we notice that they contracted to deliver 148,200 lbs. brown prismatic powder for our 10 inches and 12 inches steel breech-loading rifles. This is *more pounds of powder than above stated* ~~that~~ 11 times ~~as much as was stated to you as not existing.~~ Their contract was filled. In 1893, they furnished 40,000 lbs. for our breech-loading mortars and again in 1894 75,000 for ^{our} rifle cannon. If a single firm could furnish so much, think of what the several firms working in all the large cities of our land could do. The enterprise of our manufacturers is tremendous and we may have no fear of a lack of ample supply. *The supply will meet the demand.*

I notice that seven or eight different kinds of smokeless powder are submitted to the proving officers for acceptance or rejection.

It would be hard to estimate ^{a single discharge of} the cost of one of our large seacoast guns. We notice that at the proving grounds the 8-inch breech-loading steel rifle cannon takes 125 pounds of powder per discharge, throwing a projectile weighing 300 pounds. This gives an initial velocity of about 2,000 feet per second at the muzzle on discharge. If you ascertain the price of the powder and projectile you have the cost approximately of one discharge. I estimate ^{that} it at about \$36 ²⁵/₁₀₀. The 10 inch ^{cannon} in proving has gone as high as 245 pounds ^{of powder} for projectile ^a 575 pounds weight. The 12 inch, highest charge, 450 pounds; ^{of powder} projectile, 1000 pounds weight. The 12 inch breech-loading mortar, steel ^{of powder} 105 pounds; projectile 800 pounds weight. These charges are, of course, extreme, so that we may not consider an ordinary charge for the largest seacoast gun to exceed 450 pounds. *(12) Concluding remarks*
A writer asks me ~~One more question, you have asked me :~~ "How long would it take the German field artillery, that is, with each battery of six guns, firing 60 shots a minute to mow down its beligerent opponents five miles distance ?"

H. S. HOWARD,

SOLE AGENT

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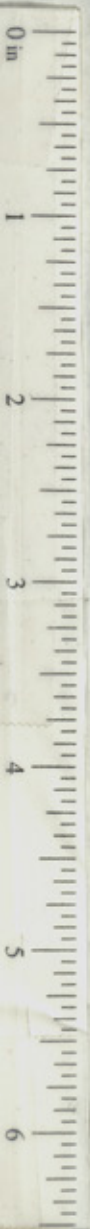
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that they contracted to deliver 148,200 lbs. brown priming powder for our 10 inch and 12 inch steel breech-loading rifles. This is 11 times as much as was stated to you as not existing. Their contract was filled. In 1893, they furnished 40,000 lbs. for our breech-loading mortars and again in 1894 75,000 for rifle cannon. If a single firm could furnish so much, think of what the several firms working in all the large cities of our land could do. The enterprise of our manufacturers is tremendous and we may have no fear of a lack of ample supply. I notice that seven or eight different kinds of smokeless powder are submitted to the proving officers for acceptance or rejection. It would be hard to estimate the cost of one of our large seacoast guns. We notice that at the proving grounds the 8-inch breech-loading steel rifle cannon takes 125 pounds of powder per discharge, throwing a projectile weighing 300 pounds. This gives an initial velocity of about 2,000 feet per second at the muzzle on discharge. If you ascertain the price of the powder and projectile you have the cost approximately of one discharge. I estimate it at about \$30. The 10 inch in proving has gone as high as 245 pounds; for projectile, 575 pounds weight. The 12 inch, highest charge, 450 pounds; projectile, 1000 pounds weight. The 12 inch breech-loading mortar, steel 105 pounds; projectile 800 pounds weight. These charges are, of course, extreme, so that we may not consider an ordinary charge for the largest seacoast gun to exceed 450 pounds. One more question, you have asked me: "How long would it take the German field artillery, that is, with each battery of six guns, firing 60 shots a minute to mow down its beligerent opponents five miles distance?"

pounds.

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BURLINGTON, VT.,



Of course, there are too many contingencies to render any satisfactory answer to so sweeping a question. There is no conceivable arrangement by which the opponents of Germany could be so met. Even the French do not know the number of German batteries available for active work. The unevenness of the ground, ^{the} hills, valleys and mountains, would be the best protection ^{to} of a French army invading Germany. If we consider ^{an} a war footing the two armies - French and German - of the same size with about the same distribution in each of the different arms of the service, I should think that the French army would have some advantage over the German in an attack from the character of the French people; under good leadership, their elan cannot be excelled. Doubtless, as in the last war, the Germans would not remain long on the defensive; but if they ^{should} ~~did~~, relying ^{wholly} upon the destructiveness of their artillery for defeating the French, they would make a mistake.

While war is now tremendous, it must be shorter ^{than ever before} and ~~so~~ the cost in life and in material may be reckoned ^{as in times past} according to the length of the war and the forces engaged, ~~making comparison something like this:~~ If a war of five years with a hundred thousand men on a side, a century ago cost \$50,000,000 for each of the belligerents, ~~a war of three months~~ to-day between the same nations and with the same number of men using modern arms would ^{come up to} ~~be about~~ \$50,000,000. It is, however, foolish to attempt comparisons or estimates. ^{Should the United States go to war,} Now, even before we made a fair commencement, we might have ten cities destroyed by a foreign navy, and so suffer untold losses. The safest possible measure against fire is to have a good fire department. The safest thought against the greed or anger of any foreign ^{adversary} ~~is~~ is to be thoroughly prepared at all times. The German preparation, now probably superior to that of any other nation ^{serve to} will prevent aggression and preserve the peace. Our preparation, of course, need not be so extensive, but it should be reasonable and intelligent.

Of course, there are too many contingencies to render any satisfactory answer to so sweeping a question. There is no conceivable arrangement by which the opponents of Germany could be so met. Even the French do not know the number of German batteries available for active work. The unevenness of the ground, hills, valleys and mountains, would be the best protection of a French army invading Germany. If we consider in a war footing the two armies - French and German - of the same size with about the same distribution in each of the different arms of the service, I should think that the French army would have some advantage over the German in an attack from the character of the French people, under good leadership, their plan cannot be excelled. Doubtless, as in the last war the Germans would not remain long on the defensive, but if they did, relying upon the destructiveness of their artillery for defeating the French, they would make a mistake.

While war is now tremendous, it must be shorter and so the cost in life and in material may be reckoned according to the length of the war and the forces engaged, making comparison something like this: If a war of five years with a hundred thousand men on a side, a century ago cost \$50,000,000 for each of the belligerents, now, of three months to-day between the same nations and with the same number of men using modern arms would be about \$50,000,000. It is, however, foolish to attempt comparisons or estimates. Now, even before we made a fair commencement, we might have ten cities destroyed by a foreign navy, and so suffer untold losses. The safest possible measure against fire is to have a good fire department. The safest thought against the greed or anger of any foreign foe is to be thoroughly prepared at all times. The German preparation, now probably superior to that of any other nation will provide for the most extensive and preserve the peace. Our preparation, of Mr. S. Howard, is so extensive, but it should be reasonable and intelligent.

SOLE AGENT
SPELTERHINE HOOK STUFFING
WASHINGTON RED CEDAR SHINGLES
GENERAL AGENT
BURKE PATENT FLEXIBLE STAMPS
156 COLLEGE STREET.

BURKINGTON Vt
189

H. S. HOWARD

SPELTERINE HOOF STUFFING
WASHINGTON RED CEDAR SHINGLES

friends

Remember ~~my dear sir~~, that what I say with reference to war ~~X~~
its destructiveness, increased more than ten fold within the last quar-
ter of a century, as just illustrated on the borders of Greece, does not
touch the moral question of war itself as a method of settling the dif-
ficulties between nations; but it ~~does~~ *enormous cost & sure losses of life* suggest a more sensible method
of procedure, and a better. However, it is plain enough that it would
not do to trust our cities to anarchists nor ultimately our liberties
to the lovers of monarchical establishments. I have a feeling that if
we do our best, keep well prepared, and do not remit our trust ~~X~~ in and
duty to the Almighty, that he will spare us many years as a republic
to bless our people and, indeed, the nations of the earth.

We cannot repeat too often to ourselves, *Our Godlets'* ~~our~~ West Point motto,
viz: "Righteousness exalteth a nation, but sin is a reproach to any
people."

3,000 words

O. O. Howard

Major General U. S. Army,
Retired.

H. S. HOWARD,

SOLE AGENT

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SPELTERINE HOOF STUFFING.

WASHINGTON RED CEDAR SHINGLES.

BURKE PATENT FLEXIBLE STAMPS.

155 COLLEGE STREET

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