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THE  
BATTLE OF THE CHANNEL TUNNEL  
AND  
DOVER CASTLE AND FORTS.

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A LETTER

*(March the 11th, 1882, but with some Corrections and Modifications)*

TO THE RIGHT HONOURABLE  
WM. EWART GLADSTONE, M.P.,

*First Lord of the Treasury;*

BY

THE REV. THOMAS BERNEY, A.M.,

*Rector and Officiating Minister of Bracon Ash.*



PRESENTED BY THE AUTHOR  
TO EVERY MEMBER OF THE LEGISLATURE.



BRACON HALL  
NORWICH

March 11th 1882

SIR,

I beg leave with great respect to address you upon a subject which has long been a source of the greatest anxiety to me, and to which I am most thankful to see that you have given your recent attention in the appointing of a Scientific Committee; and then, I learn, of a Committee on the question of the Expediency or Non-expediency of the proposed Channel Tunnel; "that the Government might give it their immediate and complete attention," and "communicate their opinion to the House before any proceedings" be "taken upon the two private Bills before the House."

I have recently read for the first time, in the Evening Standard of February 6th, the reported "Conversation" upon the subject with Sir Garnet Wolseley: and although the gallant General does not enter into that question, I think I may gather from it, that it would require a permanent Force of 20,000 men to guard the approaches on this side of this *tête de pont* of a submarine Railway Bridge: the loss of whose services would be a very great hindrance to his Royal Highness Field Marshal the Duke of Cambridge Commanding in Chief, on a certainly simultaneous attack upon our shores, upon one or more points, by a Force from Cherbourg.

I saw also the strictures, upon the General's remarks, as quoted from the *Republique Française* in "referring to the hypothesis, that the French might seize on the Tunnel before a declaration of war," suggesting that he must take them for "Ashantees." I also saw that some upholder of the Channel Tunnel Scheme asked, as if in answer to the gallant General, "What would Dover Castle and Fort be doing?"

Let me mention, in answer to that theory, that Mr. Charles Alanson Knight, brother of Mr. Knight, M.P., Colonel of the First Worcestershire Volunteer Rifles, was in Rome during all the seige of that fortified City by the French: and that he said, that the embrasures of the walls of it were completely under the command of French Riflemen; each of whom was ensconced behind his gabion, with his rifle laid so as to command

the particular porthole which he was commanded to watch ; and with a string attached to the trigger of it : so that the moment the head of a Garibaldian was seen looking out from it, however cautiously in the early dawn, the string was pulled ; and a rifle ball sped its projected course, and probably several others at the same moment, into that porthole : and he further told me, that there was scarcely a single morning on which he did not see the bodies of several soldiers laid out upon the ramparts, who had been so picked off during that morning.

It is, therefore, manifest, that, the wires being in the hands of the French, and the Telegraph boy with a pistol held at his head, a body of the enemy, though previously undeclared, could during a night obtain possession of this mouth also of the Tunnel ; so as to prevent the possibility of its being blown up by the British, or the mine being even charged : while a body of French Sappers and Riflemen, with their gabions, spades and rifles, could be thrown out ; and, before daylight, be in similar command over every embrasure and porthole of Dover Castle and Fort, or of any other various Forts that might be made instead of them : and then a column of French Regiments, brought ready packed in trains by surprise from the interior of France, would be debouching from the Tunnel : so that, before 10,000 British Troops could arrive, there would be 20,000 French Troops in command of the heights around Dover, and the Telegraph at work bringing up 100,000 more on the Line, and despatching the inevitable expedition from Cherbourg !

To this a Railway or Channel Tunnel Enthusiast may perhaps answer confidently "Oh ! The sides of the Tunnel will be mined : and there will be underground wires, over which the French could not possibly get command, leading to a Magazine!! So that settles the question!!!"

But the simple answer to this Enthusiast's theory is, that no Magazine or charge could with safety be so placed permanently in a mine within distance of the vibration caused by a passing train ; very much less by the shock of one running into a truck of coals. And even if a *loose* charge might bear some vibration, yet even slight vibration oft repeated would gradually consolidate it ! And, again, even if the mine were placed at only a quarter of the distance of the extreme range of such vibration, it would be very much too far off to produce the necessary effect ; namely, to blow one hole to connect the Tunnel with the Deep



Sea, equal to at least the whole section of the Tunnel, and incapable of being choked with masses of chalk. Anything very much less would simply provide a current that would carry the French back to Calais; unexpectedly perhaps.

Nor, again, would any Passenger, in his senses, go by a train were a charged mine known, or even believed, to be there. The extent of vibration is very great! I have myself, as an Undergraduate, been in the Observatory at Cambridge looking through one or other of the Telescopes then there: and I have seen the cobweb threads in it vibrate so greatly, from the mere passing of a waggon along the distant road, as to render the Instrument useless for astronomical purposes, till it had passed some way along it. There was then a double turn in the road from Huntingdon; and I suggested that the University ought to carry it straight to Cambridge, to avoid this frequent interruption. It may have been done since. It is also not many months, I think, since a Magazine was stated to have exploded; and that the explosion was attributed to some Rifleman having fired off his rifle at the wall! *A fortiori* how vast and extensive must be the vibration caused by a passing Train; and how effective on a charged mine!

The practical result of such known facts would be, that a mine would be made; and that cases of Dynamite would be kept at such a distance as to be beyond the effect of vibration, and therefore very considerable, in readiness to be conveyed with anxious care and deposited in the mine; and the Galvanic Battery ready to be put in action for the wires to be connected in the Battery, and the mine fixed, on the first reliable declaration of war with France.

But there again contingencies would arise. The moment that the mine was charged, the running of Trains must be altogether discontinued; and a panic among the English in France would inevitably at once ensue: and what British officer would, or should, or could dare, even if he might, to connect the firing wires in the Battery, with the assurance, urged in piteous terms, that the Channel Tunnel was filled with English Refugees?

In answer to the remark quoted from the *Republique Française*, we learnt from the Pamphlet by His then Royal Highness Le Duc de Joinville; (whether French or "Ashantee," but certainly in command of the French Fleet,) that the proper manner for France to declare war with

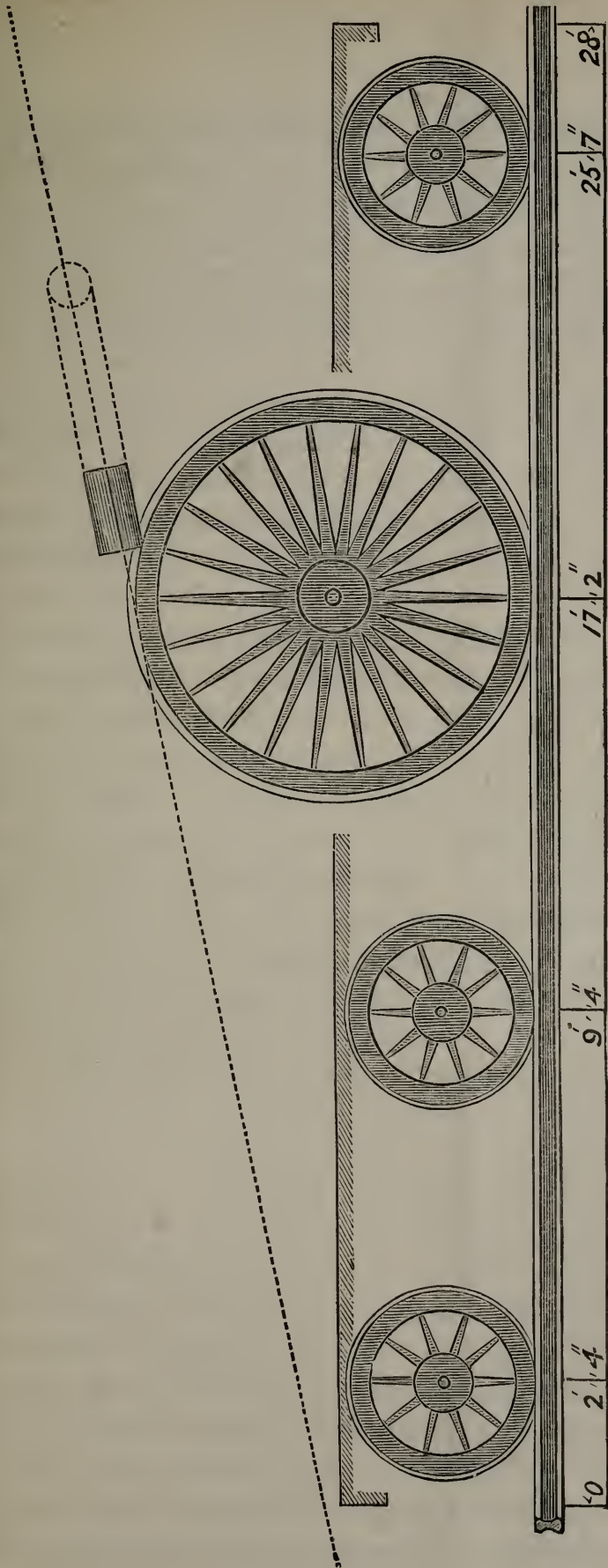
England would be by taking Malta and Gibraltar!! Would those tactics ever be forgotten? Would not the Bazaine of the day add to, or substitute for them as of minor importance, Egypt and the Suez Canal, (toward which France has already advanced as far as Tunis,) the Channel Tunnel, and a simultaneous landing on the South Coast; possibly at a point long since decided upon by our Ally Napoleon III.?

So that, as already foreseen, the charging of the mine with the Dynamite would be prevented; and the embrasures and portholes of Dover Castle and Fort, or of any other Forts that might be built instead of them, commanded, as shewn, by French Riflemen, engaged in picking off our few Artillerymen, commencing with the zealous superior officers! And this more quickly than might by some be supposed! The morning hour of changing Guard would be known. What if a single bullet were sent, at a given signal, into each casemate and battery of both Dover Castle and Fort at that time? Let us picture the scene that might be called

“THE BATTLE OF THE CHANNEL TUNNEL AND DOVER CASTLE AND FORTS.”

“A stray shot Sir!” “A stray shot, Sergeant? What next I wonder?” And where the Officer or man, whose head and chest would not instantly be leaning out to see for the smoke, and learn whence it came? Alas! Brave Hearts! The “stray shot” is but the prelude to a volley! Too late, alas, do you learn ‘An enemy hath done this!’ One alone escapes with knowledge sufficient to commence a Telegram to the War Office, just before the Castle, thus silenced, is taken by the next Regiment of the French column.

War Office. “A Telegram from Dover Castle, Sir.” “The French have seized the Tunnel. Of the Garrison, I alone ——” “Wire cut I suppose!” And His Royal Highness Field Marshal Commanding in Chief would be distressed by a duty divided between the Channel Tunnel and the South Coast indefinitely, uncertain which would prove the greater danger; and with perhaps 35,000 Regular Troops, nominally, but unluckily on a peace footing, at His Royal Highness’ command in Great Britain and Ireland, and perhaps one half of them on duty in Ireland! But what might follow? Let us picture the scene; happily not yet a fact!



A 400 lbs. 10 inch long flat-ended projectile, with (MV) a Maximum of Velocity of 1364 feet per second, and (E) an Energy equal to 5562 foot tons, striking the periphery and flange of the Great Driving Wheel of a Locomotive Engine, the central line of its trajectory being at a tangent to the circle, so as to strip it at once; segments of it breaking the two after wheels to fragments, cutting off the ends of their axle-trees, and discharging them all in rugged blocks beneath the officers' feet.

T.B.

Soon a long Train, fully packed with a Battalion of our noble Guards, with the lever of the Safety Valve held down by the gallant Colonel, who has sprung on to the Locomotive Engine; while his Noble young Ensign is urging the Stoker, and assisting *alere flammam*; is rushing at a but once before heard of reckless speed along one of the two Lines of Railway to Dover; yet all too slow to keep pace with their high spirits' enterprise!

At length, as it comes suddenly in view, "The Castle!" is the cry: and it is taken up from carriage to carriage by the eager Guards. They know not yet that it has been taken by the enemy: who have trained two heavy guns to command the two Lines of Railway leading to Dover; each to the range of a certain spot upon the Line lying before it respectively.

Suddenly from one of them there belches forth a cloud of smoke; and it's sullen bomb is heard afar; but not until it's flat-ended long shot, with an energy equal to move 5562 tons in weight a foot, has struck the periphery and flange of the Locomotive's Great Driving Wheel near its top, the central line of its trajectory exactly at a tangent to its circle, stripping it off; heavy segments of it smiting the two after wheels, and discharging them in fragments under the Officers' feet, and cutting short the axletrees: which, together with the long radial spokes of the Great Driving Wheel thus set free, plunge and imbed themselves in the earth, among Sleepers, bent rails and broken spokes and segments, fixing the Engine there! Both Officers and Engineers spring, or are flung, down the sudden decline, to the earth, far away: well is their need! for the Tender, bumped by the train of carriages behind, turns up in air; and, making a complete somersault, flies over and beyond it. And the whole Train of carriages, with its heavy complement of men and arms, with dire momentum rushing on, piles itself up six carriages deep, (as at the Thorpe Accident, near Norwich), in a confused and broken pile, over the steaming boiler; which, like a wild beast in a net, roars horribly!

At a word from the Colonel, the Noble young Ensign, waving the standard frantically, is just in time to save the next Train, with another Battalion of Guards, from rushing with like dire speed *in medias res*. Its gallant Colonel leaps from the Engine: and the whole Battalion, springing out, rush forward to the waving Colours, rifle in hand, each eager to be first; and then, as quickly piling arms, rush on to rescue the maimed

and the dying, the scalded and the burnt, and to extinguish the rapidly spreading flames.

And many a Victoria Cross is merited for the chivalrous heroism displayed by some of those lying there in their agony, patiently abiding their turn for extrication; like the noble-minded heroine of that Thorpe Accident then lying there amid the wreck, with her foot torn off: who, when told by the Doctor that he would attend to her soon, but that she had not long to live, is said to have answered, *I will be patient*.—Alas! Is there no Victoria Cross for Woman?

And many a Victoria Cross is merited for the heroic reckless courage with which both officers and men risk their lives to extricate and save their suffering comrades: for the French in the Castle, possibly not Artillerymen, still, having got the exact range, fire at long intervals flat-ended long shot into the living pile: and a Battery of eight French Six-Pounder Field Guns, having gained the heights, now crowned in the distance with masses of French Infantry; and having been pushed forward, and seeing by their Bearskin Caps that they must be Guards who fought at the Alma and at Inkerman, are yet intensifying the horrors of the scene, by opening fire upon them with grape and canister; but fortunately at too long a range. One Company of Guards, however, seizing their rifles, has sent such a withering hail among them, as they came round to re-load, that many of them bite the earth, never to rise again: and the rest, the limping lot left, are limbering up in hot haste; nor one scathless among them.

And now, having carried all the wounded and disabled, and the dead, out of range of that gun at the Castle, and placed them in the second Train, and sent it steaming slowly backwards up the Down Line of Rails; a part saved of the Band marching before, and playing the Dead March in Saul, to prevent a collision with a Special Train expected from Kidderminster, with the Colonel and Regiment of the First Worcestershire Volunteer Rifles, in full Force, for the Front; and the enemy having already shewn themselves in infinitely greater force than was supposed possible; and manifestly now in possession of a Submarine Railway open to their Base of operations, protected alike from British Land Force and Fleet; and of Telegraph wires, similarly protected, direct to the French War Office, and thence to Cherbourg; all that the General in Command can now do is to fall back with the survivors, as

escort; and send an Aide de Camp on the Colonel's horse to the nearest Telegraph Office to report all the *statum in quo*; and that the enemy is not only in possession of the Channel Tunnel, but of Dover Castle, and we suppose of the Fort also, as it is silent: and that, as for the rest, all that we know is nothing can be known; except that at the other end of that submarine Channel Tunnel Railway Bridge, now in the hands of the enemy, is France, with an army of four hundred thousand soldiers! 400,000 willing soldiers!!

If these most grave and startling dangers be easy for me, a military man by prescience alone, to anticipate; would not the completion of the Channel Tunnel cause them, and many more that the gallant General may see, to be constantly floating in the minds of the French, a Nation essentially military, till they became like a Magazine of Dynamite explosive by the smallest spark or jar; or like a mighty, swollen, overflowing river, uncontrollable, and reckless alike of banks and boundaries?

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And now, How will stand the Balance of National Gain and Loss? The Channel Tunnel Scheme panders to the avarice of certain Civil Engineers, who gratify their own vanity, and raise their reputation, by foisting it upon the Publick as something marvellous; and also a system of ventilation by means of Engines worked by compressed air: whereas, First, every Norfolk miner knows, that he can tunnel to any length through Chalk: and every bricklayer knows, that if a regular archway be cut through Chalk, he can line it with an arch of brickwork and cement to any thickness required.

So far, then, from the Scheme being marvellous, an Engineering Work of which the Nation should be proud; the praise is alone due to the Geologists who can prove, that the substratum from Albion's Cliffs to Calais is Chalk. If such knowledge be assured, the carrying out of the Channel Tunnel Scheme is merely a question of time: and, Secondly, *that* comparatively very limited, if the Tunnel be driven, as it might be, by the really marvellous Tunnelling Engine of Captain Herbert Penrice (late an Officer in the Royal Engineers and in the Crimean War); which he drives by means of compressed air; which he adopted, in tunnelling through the Alps, with the effect of supplying ventilation in Tunnels while he is making them.

Again, the Channel Tunnel Scheme panders to the avarice of the Shareholders in it, and in the London Chatham and Dover Railway. None of the Engineers or Shareholders may have foreseen the results apprehended from the Scheme: but were they to persist in their endeavours to carry it out, after the published opinion of General Sir Garnet Wolseley of the danger to this Nation with which it is fraught; and of others by whom his opinion is said to be supported; and, lastly, the arguments herein adduced; they will, I submit, be amenable to the imputation of being most selfish, mercenary and unpatriotic; persons who would sacrifice their country in the future for their own aggrandisement at the present time.

As for the comfort of Passengers at Sea; suffice it to say, that the proper use of Brandy and Common Salt, if it be applied externally to the top of the head, so as to keep it cool; and a small quantity in hot water, taken internally; will effectually prevent Sea-sickness! It has done so with myself repeatedly! and there are little Books published upon it as a certain preventive of sea-sickness. So much for Mal de mer!

And, lastly, as to merchandise; the carriage of it must always be paid for eventually by the Consumer; and justly so!

There is, therefore, no National Gain whatever to Great Britain!!!

But, in the other scale, Great Britain has hitherto depended, under Divine Providence, upon the number and excellence of her gallant Sailors; both for safety through the Royal Navy, and for the vastness of her Commerce, and for the efficiency of her Mercantile Marine. But every Goods and every Passenger Train, carried by Rail through that Tunnel, would entail upon this country a loss in the number of British Merchant Vessels and Fast Steamers built or employed; a great loss to the Shipbuilding Trade in each case; and a further loss to this Country in the training and profitable employment of British Sailors!!

Furthermore, if this Scheme were carried into effect, it would entail upon the Nation the permanent expenses of a Force of 20,000 Troops; and them available for our defence at the mouth of that Tunnel alone, or of Forts and their garrisons in lieu of them! And, moreover, if through any false alarm, or through necessity, the Tunnel were to be blown up, as relied upon by such Enthusiasts, the British Nation, through the Government British or French, would have to pay the entire expense and profits lost both of the Tunnel and the Railways connected with it,

English and perhaps French ; without ever receiving one Sixpenny Piece or any advantage from it ; whether we remained the British Nation, the Land of Liberty, or became a Province of France !!

It is also a rebellious act, in making a breach through that natural Bulwark which Nature has given us ; and which, by the blessing of Divine Providence, has hitherto been the means of our immediate protection, even more than our gallant Navy and Army : for it was by a storm that the Spanish Armada was destroyed ; it was by a gale that the Fleet of the First Napoleon was worsted on the Coast of Ireland, which he purposed to invade !

Finally, after the opinion of Field Marshal the Duke of Wellington upon the altered phasis of things in respect of the Channel in consequence of the naval use of Steam, it will, I trust, be unnecessary to point out, that unless there be the permanent Force, as premised, in and about the mouth of and approaches to, a Channel Tunnel as proposed, it would be easy, at an early hour of any dark night, for a sufficient French Force to land near it, and take possession of it, by surprise ; and at once to telegraph to Head Quarters for the inevitable Expedition from Cherbourg to proceed at once and effect a landing upon our shores !

I will, however, with your permission, state further, in conclusion, that four more recent inventions, than the use of Steam as a motive-power for ships, have very materially affected the relative *status* of great military and naval Powers, to the very great advantage of the former. They are Railways, Telegraphy, Torpedoes and Dynamite !!!!

*1st Railways.* The Emperor Napoleon III. considered that he had avenged the loss of 500,000 French Troops, incurred by the First Napoleon's Expedition to Russia, by the like loss to the Russian Forces in crossing the Steppes *en route* to the Crimea : but a Railway brings the Military Steam-Hammer in Column, without loss of power, and with its initial velocity maintained, down upon the head of the nail !

In Great Britain we have, at present at least, an insular position. Poets picture "Our Sea-girt Isle !" It is Nature's Gift. This blessing and advantage, as far at least as still operative, such Enthusiasts would sacrifice to their greed by the making of a Channel Tunnel ; and would place a constant and inciting temptation in our military neighbour's way !

*2ndly Telegraphy.* The effective use of this invention for military purposes fully illustrates the adage, "Knowledge is Power !" But the



Telegraph is part and parcel of this Submarine Channel Tunnel Railway Bridge; equally direct to the French War Office; equally protected from British naval interruption: so that, having taken possession of the Tunnel, they could at once telegraph to their War Office, and insure simultaneous action from Cherbourg!

*3rdly Torpedoes and Dynamite.* These are in the hands of Friend and Foe. Russia is now in possession of numerous long sharp Steam-Launches of extraordinary speed. They are impelled by Compound High-pressure and Condensing Engines and Boilers, all of extraordinary excellence of materials and construction; capable of being worked up to 200 pounds pressure upon the square inch; and, at 160 pounds, impelling them at 30 miles an hour!! These Launches can be carried on board any man-of-war: and, on an enemy's ship being sighted, one of them can be launched and steam got up with extraordinary celerity: and, on her becoming within sight if the enemy be on the look out, she can, in the space of two minutes, go near enough to launch a Torpedo at the ship; and, in two minutes more, have passed her, taking a curvilinear course, and be again out of sight; before the Watch would have time to do more than report her presence, much less than to train a gun upon her; and that without the remotest chance of hitting her even in day light: for they are only eight feet in width! And how would the bareness of such possibility be enhanced by the excitement arising from the apprehension, much more from the effect, of the explosion of the Torpedo against the ship?

Now these superb Engines, Boilers and machinery, were built upon the Thames four years ago; and fitted exactly to such a Steam Launch lying there, the fac-simile of numerous Launches that were being built upon the Neva, and also by an English Firm, for the Russian Government! I have seen every thing and have many particulars. Oh! Defend our Queen, defend our Country from Her friends, and especially from Enthusiasts!

Thus has Great Britain nothing to be gained by the making of a Channel Tunnel; but, on the contrary, she has every thing to lose!!!

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May I now, further, most respectfully request, that you will do me the honour of laying this my letter before the Scientific and also the Expediency Committee: as I feel assured, that if brought under their notice by your courtesy, its arguments will receive the earnest consideration they deserve.

And if they, or either of them, wish to call me before them, in respect of what I have here adduced; or in respect of certain sacred prophecies concerning the future, which, if rightly understood by received opinion, prove, that the carrying out of this proposed Channel Tunnel Scheme would be nothing short of suicidal insanity; I will most promptly obey their summons. But, if otherwise, I most earnestly pray, that they will oppose by their joint opinions the passing of the two Bills in respect of it now before Parliament.

May I also most respectfully request, that, with the permission of Her Most Excellent Majesty, you will do me the distinguished honour of laying my letter before Her Majesty the Queen; and, further, that you will also do me the honour of laying it before their Royal Highnesses the Prince of Wales, and Field Marshal the Duke of Cambridge, the Commander in Chief.

I have the honour to be,

Sir,

Your obedient and humble servant

THOMAS BERNEY

*Rector and sole Officiating Minister of Bracon  
Ash, in the Diocese of Norwich.*

To

The Right Hon. WM. EWART GLADSTONE M.P.

*First Lord of the Treasury,*

The Official Residence,

Downing Street, London.







