

SOLILQUY AT NIGHT.

(For the REVIEW.)

Kind Nature's nurse is softly stepping
Over the Earth in her mantle dark;
In the Princely hall and the lowly dwelling,
On the tented field and the lonely bark:
To rich and poor, to strong and weak,
Giving to all the blessings of sleep—
Much needed.

An healing balm to the throbbing brain
Are the hours of sleep's forgetfulness!
Like an interlude in our life of pain
Are the grateful hours of unconsciousness!
Mingling sweet in life's bitter gall
A panacea for the woe of all—
Freely given.

She oils the wheels of busy life
In the maddened whirl for empty gain;
Allays the friction of the heated strife
In the struggle dire for a gilded fame!
But there are some who cannot rest
Even on her inviting breast—
I'm one.

Some pains there are she cannot ease
And wants that she cannot supply;
Though breathe she softly as zephyr's breeze
On heated brow and aching eye!
She has no charm to soothe the one
Who in this world is all alone—
Like I.

There's a hunger deep in this soul of mine
That nought but God can satisfy!
To hear Him say "I'm ever thine"
And will to thee be ever night;
"I would take away this dark unrest,
My heart would then with peace be blest.
No more alone.

But a darker form swift glides among,
With noiseless steps, the abodes of men—
Busy at work midst the sleeping throng
Stillling some hearts to ache never again.
Com e Sister of sleep and bid me begone
Where never again shall I be alone—
In Heaven.

H. W. K.

THE GATLING GUN.

We publish to day from the U. S. Army and Navy Journal the conclusion of the Report of the Board of officers on the Gatling Gun, and we need not remind our readers that the conclusions they have arrived at were long since foreshadowed in the VOLUNTEER REVIEW. The report is exhaustive and settles the position of the "Gatling Gun" as a warlike weapon beyond question.

The board have deemed it desirable to place a somewhat liberal construction upon the phraseology of the act of Congress under which they were appointed to conduct the trials herein recorded. The law, as well as the order appointing the board, provides for "experiments and tests of two Gatling guns of large calibre for flank defence of fortifications," leaving to be decided by others what calibres should be tried, and also whether the experiments should be conducted with special reference to permanent works only, or should embrace detached field fortifications and entrenched lines. The intention has been to make the tests sufficiently comprehensive to justify an expression of opinion as to the value of the Gatling gun for flanking purposes generally, in all kinds of works strengthened by flanks whether requiring, under existing practices, an artillery armament or otherwise.

The lines of defence in our permanent works are, with one or two exceptions, comparatively si ort. In works having high counterscarp walls and deep ditches, the effective fire of the casemated flanking guns is necessarily restricted to sweeping the ditch; in others, where the counterscarp is comparatively low, it can easily protect the terreplein of the covered way and reach the crest of the glacis, while in exceptional cases even the approaches to the work for some distance can be reached and commanded from the flank casemates with, slightly curved, fire delivered over the glacis.

In a few works, indeed, having neither counterscarp nor glacis, the flanking guns have an unobstructed view of the approaches.

In order to flank the ditches only, ranges exceeding 200 yards will seldom be necessary, and an increase of 50 yards will, in most cases, attain and sweep the covered way.

Whenever the approaches to a permanent work can be seen or reached from the flank casemates, the latter should of course be armed with guns having as long a range as the case requires, provided their effectiveness for flanking purposes at short ranges is not impaired thereby; one essential condition of such effectiveness being the capacity to deliver a rapid and intense fire at the critical moment.

The lengths of the lines of defence, or the range for flanking guns, in some of our permanent works are given below.

Fort Warren, Boston Harbor, Massachusetts, has casemated flanks; the greatest range when the flanking guns have to attain is 160 yards.

Fort Independence, Boston Harbor, Massachusetts, also has casemated flanks; but there being no counterscarp wall to intercept the fire, flanking guns of long range are applicable.

In the fort at Clark's Point, New Bedford, Massachusetts, the flanking guns would attain the opposite counterscarp with a range of 84 yards.

The fort at Sandy Hook, New York Harbor, if completed substantially according to the official plan, will have lines of defence on its longest front equal to 267 yards.

Fort Tompkins, New York Harbor, has casemated counterscarp galleries for defending the ditch, the longest range for flanking guns being 136 yards.

Fort Wadsworth, New York Harbor, has casemated flanks, the longest front being the gorge, where the range to the opposite counterscarp is 165 yards.

Fortress Monroe, Virginia, is partially casemated; the longest range for the flanking guns, in order to reach the opposite counterscarp is 208 yards.

Some of the flank casemates see over the counterscarp and command the approaches, and might advantageously be armed with long range flanking guns.

Fort Pulaski, Georgia, has casemated flanks on the gorge face, to protect the bridge over the ditch; distance from flanks to opposite counterscarp, 168 yards.

Fort C. inch, Amelia Island, Florida, has casemated flanks; longest range, to the crest of the glacis, 191 yards.

This brief list comprises works as unlike each other in relief and general design as the entire catalogue of permanent fortifications designed for the defence of our coast affords. In some, like Fort Wadsworth, the heavy guns, as well as those for flanking defence, are arranged tier above tier, thus concentrating a large armament upon a small

area; in others, like Fortres Monroe, the work covers a large space and delivers but one tier of fire from heavy guns. We have not, probably, half a dozen works, either completed, under construction, or projected, having lines of defence exceeding 200 yards in length; and although there are quite a number in which suitable guns in the flank casemates could command the approaches for a much greater distance, the necessity for far reaching flanking guns in these cases is not deemed imperative, for the reason that the terrepleins of the flanks carry heavy guns, mounted *en barbette*, available for the longer ranges. There would seem, therefore, to be no existing reason for the substitution of long range for short range guns in the casemated flanks of our permanent works, unless we shall secure thereby a more intense fire at short range than we now possess, and that, too, without sacrificing any essential feature of the existing method of flank defence by howitzers. One feature of the defence by howitzers is their capability of throwing shells. These are sometimes necessary for sweeping away temporary works improvised by an enemy's column, to cover their approach, especially in crossing the ditch in an open assault. When the barbette guns can be relied upon this purpose, the necessity for retaining shell guns only in the flank casemates is not obvious. In the general case, however, as preliminary to any open assault except a *coup de main*, either the barbette fire of the besieged is destroyed or arrangements are made to keep it subdued or silent during the critical period of the attack.

In field fortifications, whether the guns for flank defence are arranged to fire through open embrasures between merlons or otherwise, they generally command the approaches for a considerable distance; and a gun that can deliver a rapid and intense fire, effective at both short and long ranges is very desirable. Indeed, their power to attain an enemy's column at a long distance obviates, in a measure, proportioned to their efficiency, the necessity for using shell guns, or any other flanking guns, at close range. The same is true not only of a line or lines of detached field works located in such defensive relations to each other that the guns of one work flank the faces and sweep the approaches of those adjacent to or in advance of it, but also of continuous lines of intrenchments, with salient points, at intervals armed with artillery to defend the approaches and flank the retired portions. Under these circumstances ranges for flanking guns of 1,000, 1,200, or even 1,400 yards are not deemed excessive; and the gun that can deliver the most effective fire against troops at these distances must be regarded as the best, other things, including efficiency at short ranges, being equal. If, in addition this hypothetical gun shall have proved itself capable not only of delivering but of maintaining uninterruptedly for hours a most destructive fire at all distances, indifferently, from fifty yards up to and beyond a mile, a power conspicuously absent in our present service ordnance, its introduction into the armament of our fortifications, as an auxiliary, would seem to be an obvious necessity. The Gatling gun is such an arm, and is, beyond question, well adapted to the purposes of flank defence at both long and short ranges.

The 0.42 inch or 0.45 inch calibre Gatling gun can easily fire 400 rounds per minute continuously for hours, with the necessary reliefs at the crank. The 1.00 inch calibre Gatling gun can fire 155 to 160 shots per