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## No. 620.

**For the Week Ending November 19, 1887.**

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### INTERNATIONAL UNION FOR THE PROTECTION OF INDUSTRIAL PROPERTY.

We have received a pamphlet treating of the effects of this treaty, recently signed by the President, upon industrial property, patents, and trade marks of citizens of the United States. It is issued by the government and is written by Mr. F. A. Seely, Examiner of Trade Marks in the U. S. Patent Office. It presents the general history of the subject, and gives the provisions of the treaty, following each quotation with a discussion of its effects.

In the main there are no effects as far as American citizens or patentees are concerned. The provisions of our patent system are already so liberal, as compared with those of other countries, that a treaty of this sort does not operate to broaden their scope; while the limitations of our statutes are such as to remove the American patent practice practically from the operation of the convention.

The review by Mr. Seely is most creditably executed, and may be commended to our readers. In the future the treaty may develop so as to affect our interests. As periodical meetings of the commissioners are provided for, a continual discussion of its provisions, with modifications thereof from time to time, is a probability.

### THE GENEVA NON-MAGNETIC WATCH.

In these days, when dynamos and electric motors are everywhere met with, and when they are continually finding new fields for work, the production of a watch that is utterly unaffected by the strongest magnets is an improvement well worthy of special notice. When dynamos were first introduced, many watches were magnetized, and processes and machines were invented for demagnetizing them. Finally, the custom of leaving the watch outside when entering a room containing dynamos was adopted, to prevent the annoyance due to this trouble. A cure for the whole affair, however, is found in the invention of Mr. C. A. Paillard, of Geneva, Switzerland. He has applied palladium to the manufacture of watches, using it for those parts which are usually constructed of steel. Palladium is a metal of the platinum group, but of far lower density than the latter; it is only of 11·3 sp. gr., or about 50 per cent heavier than steel. It melts at 2,480° Fah.

Palladium is absolutely non-polarizable, and is unaffected to any noticeable extent by the presence of a magnetic field. The invention was recently tested before the National Electric Light Association. A balance wheel made of it as a substitute for steel was placed directly upon a powerful magnet without showing the slightest adhesion; another was floated upon water, and was entirely indifferent to the presence of a horseshoe magnet held close to it. An incidental advantage is that the metal is rust-proof. This makes it peculiarly valuable for use at sea. Dynamos are now being introduced on many ships, so that in one of these non-magnetic watches the two great troubles of rust and polarization are successfully provided against.

The introduction of dynamos and motors for the propulsion of street cars, for elevators, and for scores of other uses is only a question of time. The importance of having a non-magnetic watch is increasing every day. The Geneva Non-Magnetic Watch Company, of 177 Broadway in this city, are well prepared to supply this want of the day, as they are the agents for Mr. Paillard's inventions, which have proved so successful and which on their face must solve the problem.

### Alaska as a Mining Region.

From all we have been able to learn, the outlook for placer mining in the Territory of Alaska is not so very encouraging, the long distance these mines are located from the sea coast, the cost of getting to them and of living after they are reached, coupled with the shortness of the working season, constituting the great impediments to success in this branch of mining. The only placers that seem to amount to much are found on the upper Yukon; nor do these, so far as discoveries have gone, appear to be either rich or extensive. In proceeding to that region we have first the passage by steamer from San Francisco or other more northerly port to Sitka, a trip made in a few days and at small cost.

But Sitka reached, the real hardships begin, the journey thence on being rough, toilsome, and not altogether free from danger. It is also very expensive. After navigating an inlet for a hundred miles the miner reaches the Chillcoat mountains, where a long and costly portage has to be made, the Indians charging $13 per hundred pounds for packing goods over the range, which has an altitude of 3,500 feet above sea level. These mountains crossed, a series of lakes has to be navigated for another hundred miles, which brings the voyager to the Yukon, a large, swift-running stream, up which he has to pull his boat full 500 miles before reaching the first diggings. What of time, labor, and exposure such passage involves, one can readily imagine when told that the current of this river runs at the rate of five miles per hour.

If in that region the miner gets in 90 days of actual work, it as much as he can count upon. Yet this, between going and coming, implies a year spent about the business, unless the miner attempts hibernating in that high latitude, an alternative which few have the hardihood to try.

While getting to these mines is no mere pastime, the wages made there are by no means large—that is, if the accounts given by those who have lately returned from that region can be depended upon, and, according to which, the earnings of the miners do not average more than $300 or $400 for the season; or, to use the language of these men, they run from $200 to $500. The gold, which is scaly and rather fine, occurs in bars along the main river and some of its tributaries. These bars, none of which are rich and some of which are entirely barren, are for the most part small and difficult to work, the ground a few feet back from the water being frozen solid to bed rock.

The miners who returned recently from the Yukon diggings, Alaska, while agreeing as to the richness of the bars in gold, say that the country is a hard one to mine in and to prospect in. The shortness of the season is a great drawback, and even when they can work, the myriads of mosquitoes make life a burden.

These are not inviting conditions for the old California miner, few of whom we opine will be likely to seek these distant and forbidding regions as a field of labor, unless it be in search of quartz deposits, upon which, it seems probable, the mining industry of Alaska will have to mainly depend. That some portions of the country are rich in vein mines has been abundantly shown, though comparatively speaking but little prospecting has yet been done there. Although the winters are long and severe, this will not much interfere with quartz operations once the mines are opened and equipped with plant, as wood and water are generally in ample supply. As a quartz mining country, the resources of Alaska are certainly considerable and may be very great.—*Min. and Sci. Press.*

### Closing Events of the Autumn Naval and Army Maneuvers at Newport, R. I.

The sham battle between the North Atlantic naval brigade and the military was fought at Newport, R. I., on November 10, and brought the fall maneuvers to a brilliant close. The naval brigade landed and had managed to pass the enemy's batteries at Fort Adams, but were unable to dislodge the opposing forces from their position on Coddington's Point. This compelled them to retreat to their boats and return to their ships. The fire from these protecting vessels was assumed to protect their landing and embarkation. Shortly after daybreak on the 10th, the reveille was sounded on shipboard. The squadron formed in column, led by the Richmond. Four torpedo boats went ahead to find a channel free from the enemy's obstructions. As a representative of the latter, ten mines were anchored in a double row across the channel between Fort Adams and the Dumplings. In Fort Adams a junction box was placed, which was under the umpire's eye. If a vessel ran over one of the mines, an igniter was exploded by contact. This indicated to the umpire which mine had done its work. Flags indicated a clear way through the mines where the torpedo boats were assumed to have countermined the defense. In passing the line of mines, the Ossipee exploded one of the igniters, and was declared out of action. Otherwise all the vessels passed through. They had also to stand in their passage a vigorous cannonading from the shore, but were all allowed a safe passage. They then anchored off Coddington's Point in readiness to shell the ground selected for the sham battle of the afternoon.

At noon the landing of the naval brigade began. The men were carried ashore in launches with three inch and Gatling guns. The marines took a prominent part in the contest, and the army was represented by both infantry and cavalry. The attack at last began. The tide of battle turned several times, but the shore forces prevailed over the blue jackets. Under cover of the ship's guns and of the Gatlings, the sailors at last took to their boats to return to the ships in orderly retreat. Just as this fire was slackened, a new attack was made upon the retreating forces by artillery and infantry. But, by a renewal of the protecting fire, the attacking body was repulsed. The sailors kept up a fire from the boats as long as their powder lasted. The squadron, after receiving its men, took up its old berth off Goat's Island; and with a fairly even distribution of victory on both sides, the autumn maneuvers closed.

### Invention of the Circular Saw.

The circular saw has been claimed as an American invention, made by Captain William Kendall, in 1820. This claim is pretty effectually upset by the fact that an English patent was granted in 1777, to Samuel Miller, of Southampton, for an entirely new machine for sawing wood, stone, etc., in which the drawings show the circular saw. Now let the screaming eagles shut up on this subject. There are plenty of other inventions to brag about that really originated on this soil.