

UNCLE SAM, LAND AGENT, BUSY MAN

Real Estate Business of Government Has Increased in Recent Years.

WESTERNER DIRECTS AFFAIRS

Clay Tallman, Chief of Federal General Land Office, Believes Greatest Achievement Has Been in Lessening Delays.

In spite of the fact that millions upon millions of acres of the public domain have been settled by homesteaders under the federal homestead act and it has been generally supposed that the greater part of the public lands have been occupied, Uncle Sam's real estate business continues to be quite active.



Clay Tallman.

general land office by Secretary of the Interior Franklin K. Lane, who has general supervision over the land office.

Mr. Tallman has instituted many reforms in the administration of the land office, the most important of which, he believes, is that which has reduced the delays in acting upon homestead final proofs and applications for surveys.

The lessening of these delays, it is believed, has been partly responsible for the increased amount of business handled by the land office in the past few years.

Review of Year's Work. In the belief that few people have any idea of what the general land office has to do or how extensive its field of operations is, the department has given out a review of the work done by the land office during the fiscal year 1915.

Patented 13,025,427 acres, as against 12,678,076 acres in 1913 and 10,135,475 acres in 1912.

Issued 2,711 patents on desert-land entries, embracing 448,752 acres, as against 2,127 patents embracing 346,794 acres during the year previous, 2,330 patents embracing 356,477 acres in 1913, and 2,285 patents embracing 304,728 acres in 1912.

Issued 1,590 patents in fee to Indians, relieving 202,050 acres from restrictions against alienation, and rendering such acreage subject to taxation, as against 980 patents, embracing 122,432 acres in 1913, and 1,051 patents, embracing 187,267 acres in 1912.

Patented 140,070 acres under the Carey act, as against 4,244 acres the year before and 85,170 acres in 1912-1913.

Patented and certified under railroad and wagon-road grants 1,324,142 acres, as against 828,911 acres in 1914, 1,240,998 acres in 1913, and 20,975 acres in 1912.

Allowed entries of public and Indian lands for 16,861,214 acres, as against 16,522,852 acres in 1914, 15,807,222 acres in 1913, and 14,574,688 acres in 1912.

Approved and accepted original surveys covering 11,988,887 acres, and 2,350,982 acres of resurveys, an average largely in excess of accepted surveys in any year during the last two decades.

Opened Up "Lake" Lands. Surveyed and opened to entry 27,416 acres of Arkansas lands heretofore erroneously shown on the plats of survey as lake or sunk lands.

Rejected 600 applications for Indian allotments, for the reason that it was ascertained, through new methods of investigation, the applicants were not entitled thereto, thus rendering 95,000 acres of land subject to other disposition.

Sold 889 tracts of land surveyed as villa sites, fronting on Flathead lake, Montana, for \$125,000, some tracts selling for \$800 per acre. First sale of the kind in the disposition of public lands.

Settled and disposed of a long-standing controversy involving the exchange of over 400,000 acres of land in the Navajo and Moqui Indian reservations, Arizona, for lands outside of said reservations.

Restored to settlement and entry after special investigation in the field,

7,805 acres in the Imperial valley, California. Surveyed in the field, under the Alaska coal leasing act of October 20, 1914, the coal lands in the Matanuska, Bering river and Nenana coal fields, organizing therefor 15 separate field parties.

Surveyed within railroad grants, during 1914 and 1915, 4,008,000 acres, as against 1,620,000 acres in 1912 and 1913.

NATION'S MERCHANT MARINE SHOWS THE GREATEST GAIN

Increase in Tonnage in Two Years Nearly as Large as That of All Other Nations Combined.

The American merchant marine made a larger gain than that of any other country in the world during the two years following the outbreak of the European war. In fact, the gain of American ships is nearly as great as that of all other nations combined. These figures, contained in the annual volumes of Lloyd's Register of Shipping for the year ending June 30, 1916, are accepted by Uncle Sam as authoritative.

The American merchant marine has increased from 3,174 ships with a gross tonnage of 5,368,194 in 1914 to 3,245 ships with a gross tonnage of 6,148,861 in 1916.

Results of the changes wrought by two years of world warfare are perhaps less marked than has been generally supposed. The world's merchant shipping is less by 403,416 gross tons than at the outbreak of the war, while during the two years just before the war merchant shipping increased from 44,600,677 tons in 1912 to 49,089,552 tons in 1914.

Since the outbreak of the war the shipping of neutral nations has gained \$27,019 tons; and the shipping of the allies has gained 268,740 tons, while shipping under German, Austro-Hungarian and Turkish flags is 1,503,215 tons less.

The increase in American tonnage is mainly due to the ship-registry act of August, 1914, which permitted American owners of ships under foreign flags to obtain the American flag and register. To this act is also attributable part of the losses of British, German, and all other foreign shipping, as by that act 350,000 tons of shipping under the British flag, 150,000 tons under the German flag, and 125,000 tons under other foreign flags, owned by Americans, secured American registry. British tonnage thus transferred is greater than the net British loss during the war. The German merchant marine is the heaviest loser, 1,307,744 tons, almost wholly through the transfer to other flags, either under our registry law or through capture by the allied powers. Very few German merchant vessels, except auxiliary cruisers, sunk by gunfire in battle, have been destroyed.

OUTPUT WORTH OVER BILLION

Uncle Sam's Census Figures Show Iron and Steel Business of Country Has Reached Great Proportions.

The United States produces normally more than a billion dollars worth of steel and iron annually. These figures are shown by Uncle Sam as a result of the census of 1914, in which the value of the products amounted to \$191,827,244. The statistics for 1914 covered a period of marked depression, unofficial figures estimating the output in 1914 to have been 25 per cent less than in 1913. The output in 1909, the last previous year covered by the census reports was valued at \$92,348,573. These figures are taken to indicate that the normal output now is well above the billion-dollar mark.

The reductions in the output from 1909 to 1914 were greater in railway steel, because of the absence of extensive railroad building or rebuilding in 1914. The output of rails in 1914, not including rerolled or renewed rails, was only 1,842,041 tons, valued at \$74,000,918, as compared with 2,858,510 tons, valued at \$81,128,215 in 1909, a decrease of 35.6 per cent in tonnage and 43.4 per cent in value. The production of armor plate, gun forgings and ordnance showed a big increase in 1914, the value of the output increasing 87.3 per cent, as compared with the output of 1909.

EAST TO HAVE BIG FOREST

Uncle Sam Already Has Purchased 1,396,367 Acres in White Mountains and Appalachian Regions.

Uncle Sam already has purchased or approved for purchase 1,396,367 acres of land on the headwaters of navigable streams in the White Mountains and Appalachian regions to be included in the great national forest which is being created in the East under the provisions of what is known as the Weeks law, which was passed by congress in 1911.

The government has practically completed its purchase in the northern portion of the White Mountains. With the land recently purchased, a total of 698,086 acres in the White Mountains has been acquired.

Congress recently reappropriated the \$3,000,000 of the original fund which was not spent in the beginning of the work and which consequently reverted to the treasury. This money, according to the officials in charge, will be used mostly to round out the lands already acquired, so that they may be easily and economically administered. In making future purchases it is stated that the policy will be to select those tracts which block in with lands already purchased and which are offered at the most reasonable prices.

Industries Show Big Gain.

A great increase in the extent of its manufacturing industries is shown by the report of the census bureau for Jersey City, N. J. This report shows that the amount paid out in salaries in 1914 was 62.2 per cent larger than in 1909 while the total amount paid in salaries and wages in 1914 was \$25,820,000, an increase of 41.5 per cent over 1909. The value of the city's products in 1914 was \$184,529,000, as compared with \$123,776,000 in 1909.

LIGHT RAYS NEW AID IN WARFARE

Englishman Invents Remarkable Engine of War Called "Light-o-Mine."

IS USED IN FRENCH ATTACKS

Mines Laid in Captured Trenches Are Set Off by Ray of Light When Recaptured by the Enemy.

Paris.—Light as an adjunct and aid of modern warfare is the newest ally of the allies, summoned to aid in the campaign against the central powers by H. Grindell Matthews, an Englishman.

Grindell Matthews' engine of war is called a "light-o-mine," and comprises an electro-clockwork arrangement that is attached to a series of bombs and which is set off by a ray of light. The new form of trench fighting, the raiding tactics first carried out by the British and now being engaged in to a great extent by the Russian troops on the French front and by the polus themselves, avails itself largely of the use of this "light-o-mine."

The apparatus itself is about a yard long and four inches square. It consists of a lens at one end, open and resembling a pocket flash lamp. Inside is a dry battery, a sensitized plate and a clockwork, and from that lead wires. When a raid is made on an enemy trench, this apparatus is carried, and with it a line of trench bombs. Now a line of trench bombs consists merely of 20 or 50 or 100 or 200 yards of ordinary iron piping, a little larger, for instance, than gas piping. The piping is cut in suitable lengths—say 10 or 15 feet long each. From each of the ends protrude two bits of wire, the positive and the negative, for the current to be transmitted to detonate the bombs. The piping is packed tightly with alternate chambers of T N T, as the allies' standard high explosive trinitrotoluol is called, and shrapnel, bits of iron nails and slugs of metal.

Mines Are Planted. The raiding party carrying this equipment and preceded by a wave of grenade throwers, raids the enemy trench after a short but intense bombardment. They bayonet or blow up with grenades the survivors in the trench, then hastily lay this mine of piping, all connected up with the wires, in the bottom of the trench, covering it over with a few spadefuls of earth. The end of the long pipe-line of bombs is attached by wires to the "light-o-mine" apparatus, and this is hidden in the enemy trench, leaving the bull's-eye lens exposed and pointing back at some object in the Franco-British lines.

About this time the German batteries in the rear have been advised that an enemy detachment is occupying a front trench section at that point and a few shells begin to drop in. That is the signal for the raiders to clear out and return to their own positions. Cautiously the enemy reconnoiters forward when he hears nothing and no shots are fired from the lost trench. Finally he approaches and finds it deserted. The first thing he does is to clamber over the parapet and look for wires leading across the No Man's Land to the raiding party's positions, and finding none, has no suspicion that a mine has been placed in his trench. Troops are sent forward to recapture the trench, and just when it is comfortably held by the Germans again, a star shell is sent up from the Franco-British position in a line following that toward which the lens of the "light-o-mine" is pointed. The light serves to set off the long line of piping, full of T N T and shrapnel, and the Germans are blown out of the trench. It would not be feasible to detonate the mines by wireless on the principle used by John Hayes Hammond, Jr., in guiding his manless boat, as in the first place it would thus be necessary to pipe aerials above the German trenches after a mine were laid and the enemy would notice the uprights

at once. In the second place the activity of the wireless apparatus of both allied and German machines overhead, signaling directions to batteries, would "jam" the connection necessary to fire the mine by activity.

Italian Works Fake. Some years ago an Italian naval officer named Valatti announced that he had invented a contrivance for detonating explosives at some distance off by wireless rays. Tests were made at Ostia, (harbor of Rome,) and on one occasion he apparently exploded a mine buried on the far side of one of the hills surrounding the harbor. He flashed the rays from an Italian war-ship. Investigation indicated, however, that he used fake mines, prepared automatically so they would explode after a certain time had elapsed.

Grinnell Matthews' proposition is quite different, however, the actual starting of the contrivance for setting off the bomb being begun by the effect of the ray of light entering the eye of the lens, and thence being carried out by the electric battery and the clockwork. The mines can be set off in daylight, ordinary light having no effect on the lens. Only if the lens were directed squarely at the sun would it produce the required effect.

AMBASSADOR ON VACATION



William G. Sharp as he appears after having served as ambassador in the French capital during the larger part of the European war. He is now in this country on leave of absence.

WEDDED IN WAR BY WIRE

Private in Washington National Guard on Border Is Married by Telegraph.

Calxico, Cal.—L. P. Cryster, a private of the Washington National Guard, on duty here, and Miss Florence Sweeney of Duquesne, Pa., were united in marriage by telegraph a few days ago. It was stated here. Ministers and witnesses, it was said, participated in the ceremony here and at Duquesne.

Chaplain S. C. Sulliger of Vancouver, Wash., officiated at Calxico. The entire wedding ceremony was repeated by the telegraph between the soldier and his bride in Pennsylvania.

The couple, it was stated, had been friends for years. Cryster's sister was married recently to Miss Sweeney's brother and Miss Sweeney then renewed her acquaintance with her brother-in-law. A proposal by mail, followed by a reply of acceptance, was said to have led to the telegraphic marriage.

TICKLESH WORK ON NIGHT PATROL

British Officer Writes of Thrilling Adventure Between the Lines.

GETS INTO CLOSE QUARTERS

Finds Germans Building Redoubt and Returns to Give Range for Machine Guns—Then Watched Stretcher-Bearers at Work.

London.—A British officer writing home tells of a thrilling patrol adventure between the hostile lines at night. He says:

"The moon was not due to rise till about 11 that night, so I decided to go out at nine. The company sergeant major asked if he could come, so I arranged to take him and one platoon scout from each platoon. Getting out onto No Man's Land marks a distinct epoch in a man's training for trench warfare. We each carried a couple of bombs, the men had knobkerries (spiked clubs) and I had a revolver and dagger, to be on the safe side. But we were out for information, not scrapping.

"It was beautifully dark, and, starting from a saphead, clear of our own wire, we crossed the open very quickly, hardly so much as stopping till we were close to the German wires. Now, when we began crawling through the wire I made the sort of mistake one does make until experience teaches. I occupied myself far too much with what was under my nose and too little with what lay ahead—and too little with my compass.

A Little Bit Close. "Suddenly I ran my face against the side of a giant gooseberry with peculiarly virulent prongs, and in that moment a bullet whizzed low over my head—and—here's the point—the bolt of the rifle from which that bullet came was pulled back and jammed home for the next shot—as it seemed, right in my ear. We all lay perfectly flat and still.

"Very slowly and quietly I raised my head enough to look around the side of that giant gooseberry, and instinct made me look over my right shoulder. We were less than ten paces from the German parapet. I turned my face left, so as to look down at the sergeant major's over my left shoulder. 'Why, we're on top of them!' he breathed to me. I whispered to him 'Pretty good for a start—a fine place, sergeant major. But we'll manage to get a bit nearer before we leave 'em, won't we?'

"It worked like a charm. It was as though his mind were all lighted up, and I could see the thoughts at work here. 'Oh, come; so it's all right, azker all. My officer's quite pleased. He knew all about it, and it's just what he wanted; so that's all right.'

"Those were the thoughts. And from that moment he began to regard the whole thing as a rather creditable lark.

"And the wonderful thing was—there must be something in telepathy, you know—that this change seemed to communicate itself almost instantly to the men crouched round about behind. I'd no time to think of the grimness of it. The thought in my mind was: 'I've brought these fellows here in carelessness. I'll get 'em back with whole skins.

What He Wanted to Know. "I whispered to the sergeant major, and very slowly and silently we began to back away. The sentry must have been half asleep, I fancy. My compass showed me we must have been forty or fifty yards left of the point in the German line we wanted; so as soon as we were far enough back we worked slowly up right. And then we found all we'd hoped for. It was a regular redoubt the German was building, and he had nearly a hundred men at work.

"That was good enough for me. All I wanted now was to get my men back safely. I knew the O. C. (officer commanding) had two machine guns trained precisely on the redoubt. All I wanted was to make sure their fire was a shade to the left, and every bullet would tell. We should be firing fairly into them, because the little cross-communication trench we had watched them working in was no more than waist deep; just a short cut for convenience in night work only. We had 'em. The stationmaster told me the men wanted to bomb 'em from where we were. But that was not my game at all. I saw the last man into our snip, and found the O. C. waiting there for me. I'd no sooner given him my news than he was at the guns. We had twenty or thirty rifles leveled on the same mark, too, and at the O. C.'s signal they all spoke at once.

"The men were wildly delighted. They had seen the target, lain and watched it, under order not to make a sound. Listening now, the German guns having ceased fire, our sentries could plainly hear groaning and moaning opposite, and see the lights reflected on the German parapets moving to and fro as their stretcher-bearers went about their work."

Youth Can't Smile or Flirt Ever.

New York.—Magistrate Krotel sentenced Philip Levine, eighteen years old, never to smile or flirt with any girl in the city as long as he lives. Levine had been arrested on complaint of Dora Rubinstein, who alleged he smiled at her and blew smoke at her in an elevated train.

Woman Lands Big Bass.

Rochester, Ind.—Probably the largest black bass ever taken by a woman from Lake Manitou was caught recently by Mrs. Frank Emerick of Indianapolis when she hooked and landed a large mouth bass weighing 7 1/2 pounds.

Another View.

"I heard Bill was making money so fast that he had to give it up for a long run."

HOME BEAUTIFUL

Flowers and Shrubbery Their Care and Cultivation



Vincent Astor's Place on the Hudson.

FALL WORK INTERESTING

By ELIZABETH VAN BENTHUYSEN

In the cheery October days—the days of brown ale and invigorating atmosphere—the garden comes fully into its own. There is not only the fascination of working among the plants and flowers, but there is preparation for the spring. If the autumn is neglected there will be no realization of any spring hopes.

Planning and foresight are essential to garden success, and the man who had the most pleasure in his October work will reap the greatest reward when the springtime comes. Perennials must be transplanted. Good, safe places are to be found for them, with a good covering of leaves to keep away the chill of cold days.

Transplanting is real work. A rainy day helps lighten the task because there is no need for watering or shading the plants. A trowelful of manure under each plant will lend the neighbors next spring to wonder why your foxgloves send up spires five feet high instead of mere three feet that less carefully handled plants attain.

Don't let the perennials crowd each other. Where the clumps have grown so closely as to crowd, cut them in divisions with a sharp spade and reset them in good, rich soil.

In October the perennials will be ripening their seed, which process they begin in September. The seed can be saved in separate colors if the flower stalks were marked while they were in bloom. It is worth the while to save the seed, even though it has to be mixed. The mixed seed can be sown in out-of-the-way places. Hollyhocks, foxgloves, poppies, Canterbury Bells, Sweet William and Coreopsis will produce large envelopes of seed.

It must not be forgotten that a supply of dead leaves has to be laid in when leaves begin to fall. They are the natural blankets that are provided for the tucking away of the children of the garden in the winter beds. A little addition to the leaf supply, carefully packed away each day in sacks or barrels instead of wastefully burning them will save many flowers and pay a dividend in pleasure and profit.

Among the wealthy folk of the East the fall is being used for general garden work. Vincent Astor is having a remarkable lot of work done at his country place, Rhinecliffe, on the Hudson river. He found that the roads and walks were in many cases badly laid out. They were crooked and lacked symmetry in keeping with the estate. So he has had his roads straightened and put in order.

JAPANESE TABLE TREE

There are some curious old trees in Japan that have just the opposite qualities to those which are found in the United States. Out in our great forest country, when a tree has reached the dignity of 100 years of undisputed residence in any one community, it rears its proud old head and stands as a landmark and a leading citizen of the forest.

Japan supplies some very strange specimens that live to be 100 years of age without ever getting off an ordinary table. They are stunted, gnarled



SPEEDING UP THE GUNS IS HOT WORK



This shows one of the smaller guns in action during the British offensive on the western front. There is not a minute's let-up in the work of the smaller guns. It is a hot job for a summer day.

COWS HAVE THEIR HOPES

Should Be Fed in Courses Like Humans Is Assertion of Michigan Senator.

Marquette, Mich.—"Cows have their hopes and ambitions like human beings, and when they go to their meals they should be fed in courses, with a jockeyball as an appetizer and a dessert for the finish." This is the assertion of State Senator Alton T. Roberts of this city, who is looking after the welfare of a fancy dairy. "Several years ago one of my men tried phonographic music as a means of inducing the cows to give more and better milk. For a time the soothing tones brought results, but after a while the cows became tired of the music and we began to experiment with other things." The senator is not feeding alcohol to his cattle. Instead he is using the red table beet as an appetizer.

The civil service lists of the United States are being made up.