BOOKS AND PUBLICATIONS.

INTERNAL REVENUE LAWS—As Amended by the last Congress. With Copious Marginal References. A Complete Analytical Index and Tables of Taxation. Compiled by Horace Dresser.

This is a very valuable publication, and ought to be in the hands of all who wish to be informed of our internal revenue tax system. It is published by D. Appleton & Co., No. 443 Broadway, New York.

INCOME RECORD. A List giving the Taxable Income of Every Resident of New York.

This work has just been issued by the American News Company, No. 121 Nassau street. Price, 75 cents. We select a few of the names of those who paid tax on the largest incomes:-

A. T. Stewart, the well-		August Belmont	\$100,930
known merchant on		L. C Clark	110,975
	,843.637	D. Crawford	149,098
W. B. Astor	838.525	Peter Cooper	106,879
Cornelius Vanderbilt, the	, -	David Dows	168,674
great speculator	680 728	W. W. De Forrest	157,509
Legrand G. Lockwood	512,900	Daniel Drew	101,293
W. E. Dodge	392,217	C.P. Fischer	157,038
W. & J. O'Brien	189.051	Peter Goelet	173 067
Moses Taylor:	573,494	P. Hayden	158,144
Henry Young	159,464	L. W . Jerome	100,00)
Rufus L. Lord	209 968	Bradish Johnson	135,545
A. Stuart	112.762	John T. Lord	110,443
W. A. Brice	100,000	B. H. Lewis	114,763
James Brown	261,699	Joseph Samp son	126,228
Thomas Denny	106,352	Arion Arnold	158,929
C. E. Detmold	103,893	J. S. Schultz	100,228
D. B. Fuller	106,539	I. H. Lord	110,443
Arthur Gillender	350,000	Samuel Mitchell	109,824
J. C. Greene	142,354	H. T. Morgan	134,708
John Taylor Johnston	161.050	Peter Moller	111,800
J. B. Johnston	110,829	Edwin D. Morgan	110.053
Samuel Lord	177,929	George Opdyke	112,800
Peter Lorillard	289,098	Phœnix Phillip	229,864
John S. Lyle	120.334	Wm. Paton	284,510
Paul Spofford	100 000	J. D. Phelps	113,200
J. Thorn	137.699	J. Tobin	149,400
George Bhss	148,980	T. M. Taylor	105,200
G. F. Butman & L. A.	,	John Watson	166,591
Dowley	128,120	W. H. Webb	
	,		

We shall all agree that these men ought to enjoy a comfortable living, but it would doubtless appear on examination that they are less happy than the same number of industrious mechanics picked out at random in any of the trades of this city.

A SUCCESSFUL COMMANDER.

Gen. Grant is the only one of our great command ers who has actually compelled, through the com bined agency of stubborn fighting and stragetical skill, the surrender of rebel armies. Thomas nearly annihilated Hood in Tennessee; Sheridan nearly did the same thing to Early's army in the Shenandoah Valley, while Sherman has always outgeneraled his antagonist in a manner that places his name among the great military chieftains of history. It has, however, been reserved to Gen. Grant not only to defeat but also to cause the actual surrender of three large rebel armies. At the battle of Fort Donelson, in 1861, he compelled the surrender of nearly the whole force, amounting to about 15,000 men. In 1863 he drove Pemterton into Vicksburg, and captured his whole army, 31,000 strong. And now, to give the finishing stroke to his masterly skill, he attacks the largest army of the rebellion in its entrenched position, defeats that army, and compels its absolute surrender. Grant thus earns a place in history second to no other military chieftain.

THE YANKEE NUT-CRACKERS.—The Richmond correspondent of the London Times, February 16th, predicts "that General Lee's army will be a hard nut to crack, which will severely try the jaws not only of General Grant, but General Sherman." This Englishman, if he is yet in Virginia, has discovered before this that Grant does not crack nuts with his He has one of those new fangled Yankee machines, which takes the nut in iron grip, and smashes it with ease. This patent affair is beyond the Rebel ingenuity to counterpart, and it will squeeze the whole life out of the Rebellion before it ceases its tenacious pressure.—Philadelphia Inquirer.

[It 's squeezed.—EDS.

Breaking Rock by Fire. - The ancient method of breaking rocks by fire, has lately been revived at the Rammelsberg Mine, in the Hartz Mountains. In a portable furnace about one and a half bushels of coke burn from 4 P. M., to 5 A. M.; when the furnace is removed, and the rock left to cool, after being sprinkled with water. About noon the face of the rock spontaneously detaches itself: and after that, a further portion is broken. The effect of the fire extends to eight inches, and with one and a half bushels of coke, from 1600 to 2400 weight of ore is obtained at half the cost of the gunpowder process.



ISSUED FROM THE UNITED STATES PATENT-OFFICE

FOR THE WEEK ENDING APRIL 11, 1865.

Reported Officially or the Scientific An

Pamphlets containing the Patent Laws and full particulars of the mode of applying for Letters Patent, specifying size of model required and much other in formation useful to inventors, may be had gratis by addressing MUNN & CO., Publishers of the Scientific AMERICAN, New York.

47,177.-Manufacture of Ordnance-Horatio Ames,

47,177.—Manufacture of Ordnance—Horatio Ames, Falls Village, Conn.:

I claim, First, Making the interiorring, a, of a combined series, out of solid metal, and without a weld, substantially as and for the purpose described.

I also claim making the section of a series of concentric rings, of which the inner one is longer than the one outside of it, substantially as and for the purpose described.

I also claim welding the sections to the mass during one and the same beat, by means of two hammers or rams, one working horizontally and the other vertically, substantially as described.

I also claim combining with the centralizing or matching pin, G, the arms and handles, g h. by which it is more readily operated, held and withdrawn, substantially as described.

47,178.—Lazy Jack for Vessel's Salls.—Daniel R. Arnold, Haddam, Conn.: I claim a revolving lazy jack surrounding the boom, sail and gaff, substantially as set forth and described.

47,179.—Staging for Buildings.—Wm. Arronquier, Worcester, Mass.:

I claim the construction of the supporting bars and platform, and their combination with the ladders, forming a staging, as described.

47,180.—Boiler Feeder.—J. W. Bishop, New Haven,

COILL:
I claim the combination of the vessels, B and D, diaphragm, its equivalent, with a steam boiler supplying pumps, when structed and arranged to connect or disconnect the power oper said pump, as and for the purpose substantially as herein set for the purpose substantially as herein set. -Automatic Boiler Feeder .- J. W. Bishop, New

Haven. Conn.:

claim the combination of the vessels, B and D, diaphragm, c, or equivalent, with inlet and wit pipe, C and M, constructed and arranged to operate a valve, A, substantially as and for the purpose ecified.

specified.

47,182.—Steam Trap.—J. W. Bishop, New Haven, Conn.: I claim the combination of the vessels, B and D. diaphragme, with a water tank or reservoir and steam boiler, con structed and arranged to operate the valves connected therewith, substantially as and for the purpose herein set forth.

47.183.-Low-water Indicator. - J. W. Bishop, New

1/1.183.—LOW-water Indicator. — J. W. Bisnop, New Haven, Conn.:
I claim, First, The combination of the two vessels. B and D, aranged as described, with a diaphragm, c, or its equivalent, m the manner and for the purpose substantially as herein set forth. Second, The combination of the vessels, B and D, diaphragm, c, or ts equivalent, with a steam boiler, when arranged to operate subtantially as and for the purpose specified.

47,184.-Water Regulator.-J. W. Bishop, New Haven,

17,184.—Water Regulation

Conn.:

First, I claim t he valve, C, when constructed with a hollow stem, and combined with chambers, F and G, substantially as and for the purpose herein set forth.

Second, Adjusting the pressure of water in pipes by means of the chamber, G, and cocks, L and , substantially as herein specified.

chamber, G, and cocks, L and •, substantially as herem specified.

47,185.—Skate.—Daniel S. Brigham, Worcester, Mass.: First, In combination with the supporting plates, A B, the clamp lotts, E G. clamp lever, H, and lock pates, h, of the heel and sole, substantially as and for the purposes described.

Second, Providing one or both of the catch boths E G, with a pin which enters the leather of the sole or heel, to prevent any longitudinal motion of the skate substantiallyas herein described.

Third, The application to a yielding or elastic runner of the adjusting screw, L, for the purpose of making the bottom part of the rouner flat or crowning, substantially in the manner described Fourth, The combination with the supporting plates, A B, of the clamp botts, E G, clamplever, H, elastic runner, D, and adjusting screw, L, when constructed and operated substantially as and for the purposes described.

47,186.—Fanning Mill.—J. K. Buck, Winona, Minn.: I claim the combination of the elevator, B, shaft, e, provided with the pulley, d and wheel, b, with the driving wheel, a, when all the parts are arranged to operate as and for the purpose herein selection.

forth.

47,187.—Saw-set.—John Ruser, Philadelphia, Pa.:
I cloim, First, The pinchers, A, with their laws, b b', and cheeks e e, combined with the within-described devices, or their equivalent, substantially as and for the purpose specified.
Second, The plate, C, its projection, d, and arm, f, in combination with the pinchers, A, and springs, g, or their equivalents, the whole being constructed for joint operation, substantially as described.

whole being constituted a seribed.

Third, The adjustable plate, i, combined with the plate, C, substantially as and for the purposes set forth.

47,188.—Composition for Removing Scale from Boilers.

—Jacob Buzby, Philadelphia, Pa.:

I claim the use for removing scale from steam boilers of a decoction of the bark of the sweet gum tree, in combination with a solution of gambeer or catechu. 47,189.—Gas Regulator.—Charles M. Cresson, Philadel-

phia, Pa.: I claim the use in a gas regulator of a holder of the tapering form herein described, for the purpose specified.

herein described, for the purpose specified.

47,190.—Machine for Spinning Flax.—Caleb S. Davis, Lancaster, Pa.:
First, I claim the direct application of steam to the rovings, in their passage through a chamber, I.
I claim a chamber, I, having a series of slots, Y, and caps, U, with a steam pipe, M, having perforations, z, opposite the slots, Y, within said chamber, toge ther with valve, L, in combination with the connecting pipe, m', arranged and operating in the manner specified.

I also claim a modified chamber, I', with its slots, Y, enlarged in combination with the disk or pulley, X, lever, W, and steam pipe, M, witbout perforations, constructed and operating in the manner and for the purpose specified.

and for the purpose specified.

47,191.—Machine for Holding the Uppers of Boots and Shoes.—E. M. Dickinson, Fitchburg, Mass.:
First, I claim the forked clamp, B, the springs. i, the yoke, i, and the springs, K K, or their equivalents, in combination with the rest, A, as substantially described.

Second, I claim the forked clamp. B, the springs, i, the yoke, j, and the springs, K K, or their equivalents, the rest, A, in combination with the rod, d, and the springs, g, or their equivalent, for the purpose herein set forth, reference being had to the accompanying specifications and drawings.

47,192.—Press.—Hezekiah Dodge, Albany, N. Y. First, I claim the combination of the right and left hollow screw, fixed screw, G, and movable screw, F, with the follower, D, subartially as and for the purposes described.

Second, The stationary and movable right and left screw sharts, and G, hollow screw, E and spur wheel, C, with the driving spur heel and shaft, B, B', substantially as described.

wheel and shaft, B, B', substantially as described.

47,193.—Pump.—Wm. Foster Dodge, New York City:
First, I claim the cylinder cover, C, the air chamber, D, and the
covers for the two side pipes, when such parts are united with the
cylinder, A, and side pipes by a single plane joint, substantially as
described.

Second, In combination with the air chamber, arranged directly
over the cylinder, and with the stuffing box on the too of the so-arranged air chamber, I claim the tube, E, surrounding the piston rod,
connecting the top of the air chamber with the cylinder cover, and
isolating the piston rod and stuffing box from the air chamber, substantially as and for the purpose herein specified.

stantially as and for the purpose herein specified.

47,194.—Apparatus for Withdrawing Tubes from Wells.
—Wm. H. Downing, Philadelphia, Pa.:
First, I claim the jaws or arms, A. A, having projections, a' a', and adapted to be opened or spread by the spring, f', and lever, G, when lowered into the tubing of a well, for the purpose of taking hold of and raising the same, substantially as herein set forth.

Second, I claim the combination of the toggles, C, yoke, C', and cord, D, for contracting the jaws, A A, when the apparatus is to be withdrawn from the tubing, as explained.

Third, I claim the detachable cap, E, employed to retain the jaws, A A, in their closed position while the apparatus is being lowered into the tubing, substantially as described.

{This device consists essentially of two pivoted jaws, having teeth or sharp projections on their outer faces, adapted to indent or penetrate the metal tubing to be withdrawn from oil wells. The jaws are thrown forcibly open to make the teeth catch the tube, by means of a spring and a lever, the latter being made to operate by means of a cord pulled by hand, which throws the end of said lever against the two jaws, opening them and forcing them toward the sides of the with great force.]

47,195.—Upper Bearings or Bolsters for Spindles of Spinning Frames.—Mexworth D. Drake, Providence, k. I.:

First, I claim the use and employment of an upper and lower groove or oil chamber in the bore of the bolster, in combination with the use and employment of a spiral or helical groove, substantially as described.

the use and employment of a spiral or helical groove, substantially as described.

Second. The use and employment of a spiral groove in the bore of the bolster, in combination with a groove, a, at the bottom, whether the top groove is used or not.

-Piano-fortes.-Spencer B. Driggs, New York City

City:
First, I claim the sounding chamber, B, provided under the case proper of the piano forte, substantially as and for the purpose herein specified.
Second, Connecting each or any one of the strings with the sound-board bridge independently of the other strings by means of two metal bearings, tm constructed or provided on or in one side of a stud, n or p, secured in the bridge and having between them a lateral opening through which the string can be inserted in a lateral direction substantially as herein described.

direction substantially as herein described.

47.197.—Wardrobe Bedstead.—John Eby, Muncie, Ind.: Iclaim the combination and arrangement of the posts, A A C C and F F, hars, B B and G, rails, D and E E, doors H and K K, with the elevating board, P, and table, T, the whole being constructed as described for the purpose specified.

47.198.—Composition and Manufacture of Iron.—Alexander H. Everett, New York City:
First, I claim the combination of cast iron, wrought iron, oxide of manganese, oxide of iron and fluor-spar or other fluoride as and for the purposes set forth.

Second, The combination of cast iron, magnetic iron ore, oxide of manganese and fluor-spar or other fluoride substantially as set forth and described.

Second, the combination of the fluoride substantial, and all described.

Third, The process herein described for improving the qualities of

cast iron

47,199.—Tobacco Pipe.—George W. Francis and Wm. L.
Woods, Washington, D. C.:
We claim, first, The combination of case, A, with its air holes, F
f, with the bowl, B, and its niple, D, the cap, C, the grooves, G,
and air chamber, x, substantially as described.
Second, The combination of the bowl, B, and cap, C, with its air
holes, F, substantially as described.
Third, The bowl, B, with its niple, D, and cap, C, when arranged
and operating substantially as described.

17,200.—Pumps.—Kingston Goddard, Philadelphia, Pa.: I claim the construction and arrangement of the tubular and perforated piston rod substantially as described.

17,201.—Machine for Rolling Tea Leaves.—Kingston Goddard, Philadelphia, Pa.: I claim the machine substantially as described which submits the eavesto the rolling action of the two described rollers.

47,202.—Method of Preserving Eggs.—Wm. Hansford, San Francisco, Cal.:

I claim the coating of eggs with glue substantially as and for the urposes herein recited.

47,203.—Fence.—Davis Harvey, Jackson Township,

Iowa: I claim placing upon any common fence a panel, or board pro-ecting outward and upward for the purpose of preventing dogs and wolves from getting to sheep.

47,204.—Tonic Bitters.—Isaac Hellman, St. Louis, Mo.: I claim the combination of the several ingredients mentioned in the foregoing specification in the proportions and for the purpose set torth. 47,205 .- Apparatus for Generating Carbonic Acid Gas.

47,205.—Apparatus for Generating Carbonic Acid Gas.
—Peter and Frederick Hinkel, New York City:
We claim, first, the long necked jar, l, hose, r, or their equivalents
and the air tight connection between them and the cover of a gas
generator, As described on the sudding oar, m, the wires, ww. or
Necond, We Turthe than the sudding oar, m, the wires, ww. or
their equivalents and the connection of them with jar, l, hose, r,
and cover, k, in the manner fully described or its equivalent, and
for the purpose set fort.

17,206.—Wash Board.—Nelson Homes, Laona, N. Y.:
1 claim the wash board composed of the plane edged slats or be B B, fitting closely together so as to prevent the leakage of wa through, and having a necessary degree of elasticity, said slats be provided with corrugations, a a b b, so arranged that the corruitions of anyone slat alternate with the next substantially as a for the purpose described.

47,207.—Instrument for Lighting Gas.—Thomas W. Houchin, Morrisania, N. Y.:

In combination with the tube, A. I claim the use or employment of the wick or taper, B. cord or string, C. and attachment, D. when the frame shall be constructed and combined substantially as shown for the purpose specified.

for the purpose specified, 47,208.—Straightening Rails of Railroads.—John Johnston, Alexandria, Va.:

I claim the use for straightening rails of three or more pairs of rollers having depressions and projections conforming to the shape of the rails, the rollers themselves as well as the said depressions and projections of the several pairs being arranged in respect to each other as set forth.

each other as set forth.

47,209.—Machine for Pressing Brick.—John K. Lemon,
Allegheny City, Pa.:
I claim a brick press which employs a pressing follower, C, and a
movable supporting follower, b, which are so combined and opew
ated that the latter is allowed to descend by its own gravity during
the introduction of a brick into the press box, and to rise during
the retrocession of the pressing follower, C, substantially as heren
described.

Second, A spring, d, or its equivalent for elevating the follower,
b, in combination with the crosshead, E, and rods, f f, of the frame,
C', for allowing the follower, b, to descend, substantially as described.

Third, Providing for adjusting the followers, C and b, so as to