on the ground that it requires more dressing of stones, and they have ample reason for making this their standpoint. In very dry and cold weath er, when there is trouble in keeping up the grade of flour, steaming serves instead of rain or thaw. We can do better milling when the weather is moist and damp.

(57) W. T. B. says, in reply to H. D., who asks how to get rid of red spiders: The minute insect known to florists as red spider is usually of a bright red color, though some are brown and others almost green. They seem to increase most rapidly in a dry, hot atmosphere, and upon plants that are not growing well, or that have been allowed to suffer for lack of water at the roots. They infest the under side of the leaves, and apparently shun the light: but when very numerous. they may be found upon all parts of the leaves and stem. The upper part of the leaf, opposite where the insects are at work, becomes light colored and dusty looking. In greenhouses, they are most troublesomein the warmest part of the house; but I have seen them in a house where the temperature was allowed to fall to 40° at night, and also on plants growing in the garden. I would suggest the following treatment: Syringe the plants freely with water once or twice a day, taking care to we the under side of the leaves. Keep the air of the room moist, by setting pans of water on the flues, heating pipes, or register; give all the light possible, and ventilate freely whenever the weather will permit. When the soil is dry, give sufficient water to moisten all the soil in the pot; and water no more until the surface is dry again. If plants seem stunted or sickly, re-pot them in fresh, rich soil, or use some other means to induce a healthy growth. The red spider is anything but an aquatic insect, and will yield to the hydropathic treatment, if it is persisted in.

(58) A. H. says: E. S. S. can season his croquet balls after they are turned by brushing them over with linseed oil, then baking them in the oven (slowly at first) to get the oil into the pores of the wood, repeating the oil coating three or four times, and then storing them away for the oil to dry. This will not only keep them from checking, but will make them waterproof and keep them from rotting. Last winter I made some plane handles out of a piece of a plum tree, 5 inches in diameter, those treated with oil stood the sun's rays without the least check: the others, not oiled, checked so as to make them uscless

MINERALS, ETC.—Specimens have been received from the following correspondents, and examined, with the results stated:

H. D. P.-Having subjected your sample of paper to the usual tests, we failed to discover the presence of arsenic.—J.T.—Your box contained but one specimen, a piece of basaltic rock, the only value of which would be in building.—W. M. I.-Itis a fossil coral.—A. B. H.—It is galena, containing 85 per cent of lead and 15 of sulphur.-S. M. It is quartz grains, yellow mica, black mica, and fragments of augite, which is a silicate of lime, magnesia, iron, and alumina, but is of no value in the arts.—P. B.—It is a superior red oxide of iron. We have known several specimens to contain as high as 70 per cent of iron. It will make red paint and, if in sufficient quantities, will be a valuable ore of iron.-H. P. E.-No. 1 is quartz grains, colored red with oxide of iron, and mixed with small orystals of black mica. No. 2 is the same as No. 1, but with yellowish mica also. No. 3 is quartz rock with yellow mica. No. 4 is the same as No. 2, with more quartz. No5 is similar to No3.—R. E.M. -It is asphalt. You have already a knowledge of its valuable qualities. It is a highly bituminous asphalt, capable of yielding illuminating gases and oils, and of being used as a paint. You have only to develop the deposit.—E. T. D.—It is garnet in mica schist.-N. S. S.-It is garnet. The crystaline form is the rhombic dodecahedron, and belongs to the variety of garnet called the iron-alumina garnet, which is common.—A. J. R.—It is difficult to determine the value of stones from such small specimens. If you will send us a stone of the proper dimensions (3 inches thick), and finished on one surface, we will give it a practical trial. -H.L.H. -No. 1 is a quartz rock containing scales of yellow mica, of no value. No. 2 is quartz rock with some iron, but too little to be worth working. No. 3 is a crystal of aragonite, which is carbonate of lime

COMMUNICATIONS RECEIVED.

The Editor of the Scientific American acknowledges, with much pleasure, the receipt of original papers and contributions upon the following

On Canal Towage. By R. B. C., and by W. R. W. On Filling Teeth. By A. H. B., and by J. C. On Springs as Motors. By M. W. P.

On the Patent Office. By O. P. S. On Furnaces and Flues. By H. M. S.

On Anointing in Cases of Fever. By R.P.

On a New Lamp. By D. D. N.

On a New Bridge. By J. A. P.

On Spiritualism. By H. M., and by F. S.

On Lacing Belts. By R. G. Also enquiries and answers from the following:

J. P. W.-N. C. P.-J. H. K.-J. S. B.-W. X. Y.-H. M.-T. F. M.-J. S. E.-T.-W. S. D.-H.-F. G. S. -E. A.-S.-J. E. E.-W. C. B.-S. D.

HINTS TO CORRESPONDENTS.

Correspondents whose inquiries fail to appear should repeat them. If not then published, they may conclude that, for good reasons, the Editor de clines them. The address of the writer should al-

Enquiries relating to patents, or to the patents bility of inventions, assignments, etc., will not be published here. All such questions, when initials only are given, are thrown into the waste basket, as it would fill half of our paper to print them all; but we generally take pleasure in answering briefly Hoe, S. Green.. by mail, if the writer's address is given.

Hundreds of enquiries analogous to the following Hog ring blank, W. D. Brown..... are sent: "Who makes steam cracker-making machinery? Who deals in old coins? Who make sample trunks? Who publishes works on the construction of lights for lighthouses? Where are the best carpenter's tools to be obtained?" such personal enquiries are printed, as will be observed, in the column of "Business and Personal," which is specially set apart for that purpose subject to the charge mentioned at the head of that column. Almost any desired information can in this way be expeditiously obtained.

[OFFICIAL.]

INDEX OF INVENTIONS

Letters Patent of the United States were

Granted in the Week ending

January 5, 1875,

AND EACH BEARING THAT DAT	E.
[Those marked (r) are reissued patents.]	
Ale, etc., aerating, Lajoie & Poncelet	158,50
Amalgamator, E. J. Fraser	158,36
Animals, gag for, A. Kurrus	158,50 6,20
Bei bottom, spring, G. W. Hatch	
Bell, door, A. L. Swan	158,44
Bit stock, C. B. Rose (r)	6,21
Boat, torpedo, H. F. Knapp,	
Boiler attachment, wash, W. J. Bennett	158,45
Boiler, fire box attachment, J. Lee	
Bolt-heading die, R. Gracey	
Book of letter sheets, H. S. Jackson	
Boot heel counters, trimming, J. R. Moffltt	158,38
Bottle stopper, W. Bourguignon	
Bottle stopper, C. De Quillfeldt Brick machine, E. F. Andrews	
Brush and mop holder, J. O. Montignani	158,50
Brush, feather dusting, A. D. Griswold	158, '1
Brush for cleaning castings. J. W. Jenkins	
Brush, scrubbing, M. Biglin	
Buckle, suspension, E. J. Fraser	158,367
Bureau, looking glass attachment, J. A. Knight	
Canal boats, propelling wheel for, G. Heydrick Car axle bearing, H. L. Sidman	
Car axle box, T. H. Burridge	158,35
Car brake, N. N. Horton	158,493
Car brake, M. Madden	
Car coupling, H. Dutcher	158,40
Car coupling, H. Dutcher	158,50
Car coupling, W. S. Peck	158,517
Car coupling, J. W. Treadway	158,541
Car lamp, J. Kirby, Jr	
Car, passenger, D. Price	
Car seat, E. G. Wellman	158,449
Cars, construction of railway, J. E. Leeper	
Card file, Prentice, Behel, & Talcott	158,390
Carpet sweeper, G. S. Norris	
Cartridge ease, metallic, B. B. Hotchkiss Chair, tilting, S. Hoffman	
Chair, tilting, R. W. Myers	
Cheese cutter, M. Phillips	158,518
Cherry pitter, W. B. Knapp	
Churn, J. E. Finley	
Algar mold, W., A., & A. Osenbrück	
Clamp, rubber dam, F. Hickman	6,210 158.876
Clasp, ticket, M. L. Shattuck	
Clothes and hat rack, R. R. Dorr	158,476
Clothes dryer, C. T. Shafer	
Clothes wringer, O. F. Glidden	
Coal scuttle, H. Reynolds	158,529
Coffee filter, E. R. Shattuck	153,53
Colter, A. P. Webber	158,557
Corn sheller, J. Burke	
Cotton scraper, G. W. Beard	158,45
Cultivator, shovel, T. J. Houston	158,37
Curling iron, Feder & Rosenstein	
Dental finishing tool, F. Hickman	158,37
Drawer, J. A. KnightDrawer and folding desk, J. A. Knight	
Orying rack, J. B. Stratton	
Eaves trough hanger, E. Kirk, Jr	158,41
Elevator, hay, C. S. Kershaw	158,37
Engine, air vacuum, A. K. Bider Engine, reciprocating steam, M. V. Nobles	158,52
Engine cylinder head, J. F. Holloway	158,37
Fence, barbed stock, E. T. Wilson	
Filter, J. & A. Outerson	
Flour bolt, L. V. Rathbun	
Flour frame, N. Steffens	
Fruit dryer, E. A. & C. W. Jones Furnace and heater, Blazicek & Bauer	
Furnace doors, opening and closing, S.L. Denney.	
Garter, L. F. McDonald	
Gas condenser, P. Munzinger	
Gas regulator, S. C. Salisbury	
Gas retort, S. P. Parham	158,51
Gate. M. S. McSwain	153,38
Generator, steam, T. T. PearsonGlue dryer, A.H.Sandholzer	
Grain binder, S. D. Carpenter	
Grate, E. Stimson	158,393
Grate, J. W. Williams	
Grate frame, H. M. Creamer	158,46
Harrow, revolving and drag, J. T. Henderson	158,37
Harvester cutter, Blood and Hager	158,46
Harvester frames, journal for, W. A. Wood Harvester grain binding, S. D. Carpenter	
Harvester track clearer, O. Du Bois (r)	6,201
Hatchway, self-closing, S. Lawrence	
Heater and filter, feed water, E. P. Fenn	158,411 158,39
Heater, steam, A. Van Horn	
Heating drum, J. N. Kneeland	158,380
Heel trimming machine, C E. Ballou	
HIMME, P. O. HALLUII	100,48

,	Holdback, J. B. Goldsmth	158,37
3	Horse tail protector, G. R. Wilmot	158,55
•	Horseshoeing apparatus, G. Schnoor	158 52
•	Hose, leak stopper for, W. W. Whitcomb	158.55
	Inkstand, A. W. Brinkerhoff (r)	C 110.
	Jack, lifting, E. E. Banning. Knife, shoemaking skiving, Reynolds & Newhall.	158,35
,	Lamp, car, J. Kirby, Jr	158,50.
•	Lamp pendant, F. R. Seidensticker	158,53
l	Lamp, street, C. B. Boyle	158,39
	Locomotive smoke stack, E. Cleary	158,46
	Log slide, roller, Jackson and Humphrey Loom shedding mechanism, Crompton & Wyman.	158,36
	Loom shedding mechanism, H. Wyman	158,39
	Loom shuttle box mechanism, H. Wyman	
	Lubricator, H. McGraw (r)	
	Mat, door, O. Rice	158,44
	Mill, smut, J. Richmond	158,46
	Mowing machine, G. H. Weeks	159,55
1	Ox shoe, J. E. Davis	158,47
	Paddle wheel, feathering, J. S. Morgan	
	Paper making machine, J. Butler	
	Paper tube machine, A. G. Batchelder Pavement, W. W. Hubbell	
	Pinch bar, W. Werts	
	Pipe, cement, M. Stephens	
	Pipe for lead corroding, bed, P. H. Decker	
	Planter, corn, H. Bagley	
	Planter, corn, M. Greeg	
	Planter, corn, H. P. Hall	
	Planter, corn, H. Moore	158,431
	Planter, corn, O. P. Williams	158,557
	Planter, hand corn, E. S. Turner	156,545 159 44 ₽
	Planter, seed, J. F. Warner	158.550
	Plow, J. Yocom	158,561
	Plow, gang, C. Myers	158,387
	Plow, rotary, W. H. Foye	158,482
	Plow, stump, V. M. Chafee Press, cotton, Crenshaw and Carethers	
	Press, cotton, T. J. M. Jewell	
	Printer's quoin, B. F. Allen	158,351
	${\bf Propelling wheel for can alboats, G.\ Heydrick}$	
	Pulley block, J. Weir	
	Pump, Goodwin and West Pump, rotary, G. S. Follensbee	158,312
	Pump, sirup, L. J. Knowles	
	Pump, steam, F. Trump	158,447
	Pumps, bucket for chain, J. D. Shoots	158,524
į	Purifier, middlings, E. W. Johnson	158,418
	Rake, horse hav. A. W. Coates	158,471
	Rake, horse hay, A. W. Coates	158,490
	Rake, horse hav, R. Wilson (r)	6.114
	Reservoir for water works, W. H. Morrison	
	Roller, land, J. Woolridge	
	Ruffler, J. McCullough	
	Ruler, parallel, H. Andrews	158,452
	Sad irons, uniting handles to, W. J. Reagan	158,521
	Sash holder, R. B. Hugunin	158,495
	Saw clamp, S. P. Babcock	158,494 158,470
i	Saw handle, cross cut, W. K. Stansbury	158,537
į	Saw mill head block, J. R. Jackson	
l	Saw sharpener, J. and J. A Crook	158,404
ļ	Separator, grain, P. Warner	
i	Sewing machine caster, J. H. Plauk	158.43¢
ļ	Sheep shears, F. Riedling	
i	Shirt bosom, T. M. and E. Denham	
İ	Shovel, fire, Edgar and Bardell	
	Sifter, flour, A. W. Smith	
1	Slate frame, C. J. Shields	153,444
į	Sled, S. E. Fester	
:	Soda water and sirup cock, W. Gee	
	Spinning, traverse mechanism, J. Scott	158,530
	Spooling, bobbin holder for, T. A. Mathewson	1-0 000
	Spring, torsion, R. Dudley	158,477
	Spring, torsional, C. W. Saladee (r)	158,477 6,205
	Spring, torsional, C. W. Saladee (r)	158,477 6,205 158,408 158,486
	Spring, torsional, C. W. Saladee (r). Stalk cutter, plow, and seeder, S. Dixson Starch strainer, W. Graham. Stench trap, J. P. Schmitz	158,477 6,265 158,408 158,486 158,52
	Spring, torsional, C. W. Saladee (r)	158,477 6,205 158,408 158,486 158,52 158,555
	Spring, torsional, C. W. Saladee (r)	158,477 6,265 158,408 158,486 158,52 158,555 158,467
	Spring, torsional, C. W. Saladee (r). Stalk cutter, plow, and seeder, S. Dixson. Starch strainer, W. Graham. Stench trap, J. P. Schmitz. Stereoscope, M. A. E. Whitner Stone dressing hammer, W. W. Castle. Stool, store, A. L. Bobo	158,477 6,265 158,408 158,486 158,52 158,555 158,467 158,355
	Spring, torsional, C. W. Saladee (r). Stalk cutter, plow, and seeder, S. Dixson. Starch strainer, W. Graham. Stench trap, J. P. Schmitz. Stereoscope, M. A. E. Whitner. Stone dressing hammer, W. W. Castle. Stool, store, A. L. Bobo Stoves, base burning, J. Spear (r)	158,477 6,265 158,408 158,486 158,52 158,555 158,467 158,355 6, 6,207 158,551
	Spring, torsional, C. W. Saladee (r). Stalk cutter, plow, and seeder, S. Dixson. Starch strainer, W. Graham. Stench trap, J. P. Schmitz. Stereoscope, M. A. E. Whitner. Stone dressing hammer, W. W. Castle. Stool, store, A. L. Bobo Stoves, base burning, J. Spear (r)	158,474 6,205 158,408 158,486 158,52 158,555 158,467 158,355 6,6,207 158,551 6,6,209
	Spring, torsional, C. W. Saladee (r). Stalk cutter, plow, and seeder, S. Dixson. Starch strainer, W. Graham. Stench trap, J. P. Schmitz. Stereoscope, M. A. E. Whitner. Stone dressing hammer, W. W. Castle. Stool, store, A. L. Bobo. Stoves, base burning, J. Spear (r). Stove lld, W. Weaver. Sugar into blocks, A. F. W. Partz (r). 5,208 Tag, C. B. Sheldon.	158,474 6,205 158,408 158,486 158,552 158,555 158,467 158,355 i, 6,207 158,551 j, 6,209 158,448
	Spring, torsional, C. W. Saladee (r). Stalk cutter, plow, and seeder, S. Dixson. Starch strainer, W. Graham. Stench trap, J. P. Schmitz Stereoscope, M. A. E. Whitner. Stone dressing hammer, W. W. Castle Stool, store, A. L. Bobo Stoves, base burning, J. Spear (r)	158,474 6,205 158,408 158,486 158,552 158,555 158,467 158,355 i, 6,207 158,551 j, 6,209 158,448 158,438
	Spring, torsional, C. W. Saladee (r). Stalk cutter, plow, and seeder, S. Dixson. Starch strainer, W. Graham. Stench trap, J. P. Schmitz. Stereoscope, M. A. E. Whitner. Stone dressing hammer, W. W. Castle. Stool, store, A. L. Bobo. Stoves, base burning, J. Spear (r). Stove lld, W. Weaver. Sugar into blocks, A. F. W. Partz (r). 5,208 Tag, C. B. Sheldon.	158,474 6,205 158,408 158,585 158,555 158,555 158,355 6,6,207 158,551 1,6,209 158,448 158,448 158,448 158,448
	Spring, torsional, C. W. Saladee (r). Stalk cutter, plow, and seeder, S. Dixson. Starch strainer, W. Graham. Stench trap, J. P. Schmitz. Stereoscope, M. A. E. Whitner. Stone dressing hammer, W. W. Castle Stool, store, A. L. Bobo Stoves, base burning, J. Spear (r)	158,474 6,205 158,408 158,486 158,555 158,555 158,355 168,207 158,555 158,555 158,467 158,551 158,488 158,448 158,448 158,448 158,448 158,448 158,448
	Spring, torsional, C. W. Saladee (r). Stalk cutter, plow, and seeder, S. Dixson. Starch strainer, W. Graham. Stench trap, J. P. Schmitz Stereoscope, M. A. E. Whitner. Stone dressing hammer, W. W. Castle Stool, store, A. L. Bobo Stoves, base burning, J. Spear (r)	158,474 6,205 158,408 158,486 158,555 158,555 158,657 158,555 158,555 158,555 158,555 158,555 158,457 158,488 153,442 158,399 158,544 158,487
	Spring, torsional, C. W. Saladee (r). Stalk cutter, plow, and seeder, S. Dixson. Starch strainer, W. Graham. Stench trap, J. P. Schmitz. Stereoscope, M. A. E. Whitner. Stone dressing hammer, W. W. Castle. Stool, store, A. L. Bobo. Stoves, base burning, J. Spear (r)	158,474 6,205 158,486 158,486 158,555 158,565 158,667 158,355 158,467 158,551 158,448 158,448 158,449 158,449 158,441 158,441 158,441 158,441 158,441
	Spring, torsional, C. W. Saladee (r). Stalk cutter, plow, and seeder, S. Dixson. Starch strainer, W. Graham. Stench trap, J. P. Schmitz Stereoscope, M. A. E. Whitner. Stool, store, A. L. Bobo Stool, store, A. L. Bobo Stoves, base burning, J. Spear (r)	158,474 6,205 158,408 158,486 158,555 158,555 158,467 158,255 1, 6,207 158,551 158,448 158,448 158,449 158,449 158,441 158,445 158,441 158,445 158,445 158,445 158,445
	Spring, torsional, C. W. Saladee (r). Stalk cutter, plow, and seeder, S. Dixson. Starch strainer, W. Graham. Stench trap, J. P. Schmitz. Stereoscope, M. A. E. Whitner. Stone dressing hammer, W. W. Castle. Stool, store, A. L. Bobo Stoves, base burning, J. Spear (r)	158, 477 6,205 158, 408 158, 486 158, 55 158, 555 158, 355 1, 6,207 158, 438 158, 438 158, 442 158, 442 158, 442 158, 442 158, 442 158, 443 158, 443 158, 443 158, 45 158, 401 158, 435 158, 435 158, 435 158, 435 158, 435
	Spring, torsional, C. W. Saladee (r). Stalk cutter, plow, and seeder, S. Dixson. Starch strainer, W. Graham. Stench trap, J. P. Schmitz. Stereoscope, M. A. E. Whitner. Stone dressing hammer, W. W. Castle. Stool, store, A. L. Bobo. Stoves, base burning, J. Spear (r). Stoves, base burning, J. Spear (r). Stove Ild, W. Weaver. Sugar into blocks, A. F. W. Partz (r). Stag, C. B. Sheldon. Tanning apparatus, H. Reed. Telegraphy, automatic chemical, W. E. Sawyer. Thill coupling, J. R. Burville. Thill coupling, A. M. Troy. Thread winding guide, Manchester and Bolen. Towel rack and wash stanel, R. P. Buttles. Toy bubble pipe, F. W. Pease. Toy, mechanical, H. Mencke. Tyre heating apparatus, S. G. Reed. Vegetable slicer, N. Sweetland.	158, 477 6,205 158, 408 158, 486 158, 55 158, 555 158, 467 158, 555 1, 6,209 158, 448 158, 438 158, 438 158, 442 158, 491 158, 491 158, 491 158, 401 158, 435 158, 43
	Spring, torsional, C. W. Saladee (r). Stalk cutter, plow, and seeder, S. Dixson. Starch strainer, W. Graham. Stench trap, J. P. Schmitz. Stereoscope, M. A. E. Whitner. Stone dressing hammer, W. W. Castle. Stool, store, A. L. Bobo. Stoves, base burning, J. Spear (r)	158, 477 6,205 158,408 158,486 158,555 158,555 158,555 158,467 158,555 1, 6,209 158,448 158,448 158,449 158,399 158,544 158,449 158,449 158,449 158,449 158,435 158,435 158,435
	Spring, torsional, C. W. Saladee (r). Stalk cutter, plow, and seeder, S. Dixson. Starch strainer, W. Graham. Stench trap, J. P. Schmitz. Stereoscope, M. A. E. Whitner. Stone dressing hammer, W. W. Castle. Stool, store, A. L. Bobo. Stoves, base burning, J. Spear (r). Stoves, base burning, J. Spear (r). Sugar into blocks, A. F. W. Partz (r). Sugar into blocks, A. F. W. Partz (r). Squagaparatus, H. Reed. Telegraphy, automatic chemical, W. E. Sawyer. Thill coupling, J. R. Burville. Thill coupling, A. M. Troy. Thread winding guide, Manchester and Bolen. Towel rack and wash stand, R. P. Buttles. Toy bubble pipe, F. W. Pease. Toy, mechanical, H. Mencke. Tyre heating apparatus, S. G. Reed. Vegetable slicer, N. Sweetland. Vehicles hafttip, J. B. Goldsmith. Vehicles, propulsion of, G. B. De Boucherville Washing and wringing machine, Maughlin et al.	158, 47; 6, 205 158, 496 158, 486 158, 52 158, 55 158, 55 158, 465 158, 25 158, 25 158, 49 158, 442 158, 442 158, 442 158, 442 158, 442 158, 442 158, 442 158, 45 158,
	Spring, torsional, C. W. Saladee (r). Stalk cutter, plow, and seeder, S. Dixson. Starch strainer, W. Graham. Stench trap, J. P. Schmitz. Stereoscope, M. A. E. Whitner. Stone dressing hammer, W. W. Castle. Stool, store, A. L. Bobo. Stoves, base burning, J. Spear (r). Stoves, base burning, J. Spear (r). Sugar into blocks, A. F. W. Partz (r). Sugar into blocks, A. F. W. Partz (r). Squagaparatus, H. Reed. Telegraphy, automatic chemical, W. E. Sawyer. Thill coupling, J. R. Burville. Thill coupling, A. M. Troy. Thread winding guide, Manchester and Bolen. Towel rack and wash stand, R. P. Buttles. Toy bubble pipe, F. W. Pease. Toy, mechanical, H. Mencke. Tyre heating apparatus, S. G. Reed. Vegetable slicer, N. Sweetland. Vehicles hafttip, J. B. Goldsmith. Vehicles, propulsion of, G. B. De Boucherville Washing and wringing machine, Maughlin et al.	158, 47; 6, 205 158, 496 158, 486 158, 52 158, 55 158, 55 158, 465 158, 25 158, 25 158, 49 158, 442 158, 442 158, 442 158, 442 158, 442 158, 442 158, 442 158, 45 158,
	Spring, torsional, C. W. Saladee (r). Stalk cutter, plow, and seeder, S. Dixson. Starch strainer, W. Graham. Stench trap, J. P. Schmitz. Stereoscope, M. A. E. Whitner. Stone dressing hammer, W. W. Castle. Stool, store, A. L. Bobo Stoves, base burning, J. Spear (r)	136, 171, 6,205 158, 406 158, 456 158, 456 158, 452 158, 452 158, 456 158, 457 158, 355 158, 457 158, 358 158, 442 158, 458 158, 442 158, 458 158,
	Spring, torsional, C. W. Saladee (r). Stalk cutter, plow, and seeder, S. Dixson. Starch strainer, W. Graham. Stench trap, J. P. Schmitz. Stereoscope, M. A. E. Whitner. Stone dressing hammer, W. W. Castle. Stool, store, A. L. Bobo Stoves, base burning, J. Spear (r)	138, 171, 6,205 158, 490, 158, 480, 158, 480, 158, 480, 158, 480, 158, 582, 158, 480, 158, 582, 158, 467, 158, 355, 158, 467, 158, 355, 158, 481, 158, 482, 158, 482, 158, 482, 158, 482, 158, 482, 158, 482, 158, 482, 158, 482, 158, 482, 158, 482, 158, 482, 158, 482, 158, 482, 158, 482, 158, 482, 158, 482, 158, 482, 158, 482, 158, 482, 158, 542,
	Spring, torsional, C. W. Saladee (r). Stalk cutter, plow, and seeder, S. Dixson. Starch strainer, W. Graham. Stench trap, J. P. Schmitz. Stereoscope, M. A. E. Whitner. Stone dressing hammer, W. W. Castle. Stool, store, A. L. Bobo. Stoves, base burning, J. Spear (r)	138, 171, 6, 205, 205, 205, 205, 205, 205, 205, 205
	Spring, torsional, C. W. Saladee (r). Stalk cutter, plow, and seeder, S. Dixson. Starch strainer, W. Graham. Stench trap, J. P. Schmitz. Stereoscope, M. A. E. Whitner. Stone dressing hammer, W. W. Castle. Stool, store, A. L. Bobo Stoves, base burning, J. Spear (r)	136, 171 6,265 6,265 158, 406 158, 456 158, 456 158, 456 158, 456 158, 457 158, 355 158, 467 158, 355 158, 457 158, 358 158, 442 158, 427 158, 438 158, 442 158, 427 158, 438 158, 438 158, 438 158, 438 158, 438 158, 438 158, 458 158, 548
	Spring, torsional, C. W. Saladee (r). Stalk cutter, plow, and seeder, S. Dixson. Starch strainer, W. Graham. Stench trap, J. P. Schmitz. Stereoscope, M. A. E. Whitner. Stone dressing hammer, W. W. Castle. Stool, store, A. L. Bobo. Stoves, base burning, J. Spear (r)	138, 171, 6,205 158, 406 158, 456 158, 452 158, 452 158, 452 158, 452 158, 452 158, 453 158,
	Spring, torsional, C. W. Saladee (r). Stalk cutter, plow, and seeder, S. Dixson. Starch strainer, W. Graham. Stench trap, J. P. Schmitz. Stereoscope, M. A. E. Whitner. Stone dressing hammer, W. W. Castle. Stool, store, A. L. Bobo Stoves, base burning, J. Spear (r)	138, 171, 6,205 158, 406 158, 456 158, 452 158, 452 158, 452 158, 452 158, 452 158, 453 158,

7.969.-DESK.-W. T. Bromwell, St. Louis, Mo. 7.970 to 7.976 -CARPETS -R R Campbell, Lowell, Mass. 7,977 to 7,981.-CARPETS.-J.M. Christie, Kidderminster. England.

7,982.—SIDE OF CASE.—J. E. Hunter, N. Adams, Mass. 7,983, 7984.—CARPETS.—C. S. Lilley, Lowell, Mass. 7,985.—CARPET.—C. W. Swapp, Lowell, Mass. 7,986.—CARPET.—R. Allan, Yonkers, N. Y, 7.987 .- SMOKING PIPE .- I. Demuth, New York city. ,988.-Bottle.-E, R. Durkee, Brooklyn, N. Y. 7,989 to 7,991.—CARPETS.—E. Petit, Paris, France. 7,992.-NURSING BOTTLE .- V.H. Smith, Philadelphia, Pa

TRADE MARKS REGISTERED.

2.150.-YEAST CAKES .- Amer. Y. Co., Fond DuLac, Wis. 2,151.—CIGARS.—Freedman & Co., Detroit, Mich 2,152.-NECKTIES.-Hellenberg et al., New York city. 2,153.—OIL.—W. E. Jervey, New Orleans, La. 2,154.—TOBACCO POWCHES.—Novelty Co., New York City. 2,155.-Ciars.-S. Lowenthal & Co., Cincinnati, Ohio. Hoes, die for making, F. J. Fischer. 158,366 ,156.—PLAYING CARDS.—V. E. Mauger, New York city

3.157.-FELON CURE.-W. H. Puffer, Athol. Mass. 1,158.—SHIRTS.—Bnrlock Man. Co., Bridgeport, Conn. SCHEDULE OF PATENT FEES.

 In each Caveat.
 \$10

 In each Trade mark.
 \$25

 In filing each application for a Patent (17 years).
 \$15

 In issuing each original Patent.
 \$20

 In appeal to Examiners-in-Chief.
 \$10
 In appeal to Commissioner of Patents \$20 in application for Reissuc \$30)n filing a Disclaimer......\$10 In application for Design (14 years).....\$30 CANADIAN PATENTS. LIST OF PATENTS GRANTED IN CANADA, JANUARY 7 to JANUARY 8, 1874. ,217 .- H. J. Wattles, Toronto City, Ont. Improve ments on a machine for washing vegetables, called "Wattles Vegetable Washer." Jan. 7, 1875. 1,218.—J. R. Smith, Brockville, Leeds and Grenville counties, Ont. Improvements on clothes wringers, called "The Victor Clothes Wringer." Jan. 7, 1875. 1,219.—C. A. Terrey, Southwark. Surrey county, England. Improvements on setting diamonds in drills and cutting tools, called "Terrey's Diamond Cap," Jan. 7, 1875.

,220.—J. A. Stockwell, Lynn, Essex county, Mass., U. S. Improvements on boots and shoes, called "Stockwell's Combined Toe Guard and Half Sole for Boots and Shoes." Jan. 7, 1875.

1,221.—J. C. and C. J. Sturgeon, Eric, Eric county, Pa., U. S. Improvements in lawn mowers and harvesters, called "Sturgeon's Improved Lawn Mower and Harvester.' Jan. 7, 1875.

,22.-J. Lennerton, Princeport, Colchester county, Nova Scotia. Machine for making tree nail wedges, called Lennerton's Tree Nail Wedge Machine. Jan. 7, 1873. 1,223.—J. W. Elliott, Toronto City, Ont. Machine for

the external application of croton oil, etc., called "Elliott's Counter-Irritant." Jan. 7, 1875.
1,224.—J. Vessot and S. Vessot, Jr., Joliette, Joliette county, P. Q. Améliorations an sémoir etherse combinés, dits "Le sémoir, herse, et rouleau combinés de J. & S. Vessot." Jan. 5, 1875. Improvement in combined barrow and sowing machine.

1225.-R. B. Anderson and M. Anderson, Sackville, New Brunswick, Canada. Improvement on gentleman's scarf, called "Anderson's Improved Scarf or Necktie

1.226.-G. W. McNeil, Akron, Summit county, Ohio, U.S. Improvements on wheat scourers, called "McNeil's Wheat Scourer." Jan. 7, 1875.

1,227.—R. Cobleigh, Chester, Windsor county, Vt., U. S. Improvements in carriages for children, called "Cobleigh's Improved Children's Carriage." Jan. 7, 1875. 228.—J. Telfer, Toronto City, Ont. Improvements on lamp-holding attachment to sewing machines, called

"Telfer's Lamp Holding Attachment to Sewing Machines." Jan. 7, 1875. t,229.—E. Mercier, Springfield, Hampden county, Mass... M. Lanctot, Jersey City, Hudson county, N. J., D. H.

Elliott, New York city, U. S. Improvement on rail way switch, called "Mercier's Railway Switch." Jan. 20 -Wm. S. Wooton, J. G. Blake, and H. H. Fulton, all of Indianapolis, Marion county, Ind., U.S. Improvements on secretaries, called "Wooton's Secre-

tary." Jan. 7, 1875. g. 231.—R. M. Wanzer, Hamilton county, assignee of J.

Jamison, same place. Improvements in sewing machines, called "The Wanzer B." Jan. 7, 1870. ,232,-Wm. Cochrane, La Fayette, Tippecanoe county.

Ind., U. S. Improvements on harvesting machines called "Cochrane's Harvester." Jan. 7, 1875. 1,283.—S. Paling, Woodstock, Oxford county, Ont. 1st extension, No. 598, on "The Outario Balanced Win-dow Blind." Jan. 7, 1875.

234.—S. Paling, Woodstock, Oxford county, Ont. 2d ex-

tension, No.598, on "The Ontario Balanced Window Blind." Jan. 9, 1875. 235.-H. A. Dierkes, New York city, N. Y., U. S. Inprovements in hanging and operating bells, called "Dierke's Improvements in Hanging and Operating Bells." Jan. 8, 1875.

1,236.—J. M. and C. T. Schramm, Pontoosuc, Hancock county, Ill., U. S. Improvements in the shingling of roofs, called "Schramm & Sons' Improvement in the Shingling of Roots. ' Jan. 8, 1875.

.237.-J. L. Massie, Cowansville, Missisquoi county, P.Q. Improvements in heaters, called "Massie's Improved Heater." Jan. 8, 1875.

1238.—C. H. Miller, Buffalo, Eric county, N. Y., U. S. Improvements in wooden pavements, called "Miller's Improved Wooden Pavement." Jan. 8, 1875.

Applied to wother a view of the filters, called "Codyé's Excet sior Water Filter." Jan. 8, 1875.
4,240.—L. A. Powers, Meriden, New Haven county, Conn...

U. S. Improvements on rakes, called "Powers' Rake. Jan. 8, 1875. 4,241.-W. S. Von Essen. Hamburgh, Germany. In-

provements on apparatus for cleaning boller tubes by steam, called "W. Von Essen's Steam Boller Tube Cleaner." Jan. 8, 1875.

4,212.-W. A. Martin, London, England. Improvements on furnaces and furnace doors, called "Martin's Im provements on Furnace and Furnace Doors." Jan. 8.

Advertisements.

Back Page - - - - - \$1.00 a line. Inside Page - - - - - 75 cents a line.

Engravings may head advertisements at the same rate per line, by measurement, as the letter press. Advertisements must be received at publication office as early as Friday morning to appear in next issue.

An American story of thrilling interest just begun in HEARTH AND HOME, the great illustrated weekly magazine Price reduced to \$2.50 per year. Single number six cents. At news stands or by mail. Greatinducements to agents and clubs. The Graphic Company, Publishers, \$9-41 Park Place, New York.

Planing & Matching,
Moulding, Re-sawing and Tenoning Machines. Scroll
Saws and General Wood-Working Machinery.
JOHN B. SCHENCK'S SONS (Matteawan, N. Y.
Sendfor Catalogue. [118 Liberty St., N. Y. City

New & IMPROVED PATTERNS.—MACHINISTS'
TOOLS—all sizes—at low prices.

E. GOULD, 97 to 113 N. J. R. R. Ave., Newark, N.J.