- (24) B. B S. says: I have never succeeded in making a perfect ink or fluid from any recipe, either with extract of legwood, nutgalls, or a combination of both. How can I make a bright, limpid, and bluish green at first, turning black on drying? A. Try the following: 12 ozs. nutgalls, 8 ozs. each sulphate of indigo and copperas, a few cloves, 4 or 5 ozs, gum arabic, for a gallon of ink. The addition of the sulphate of indigo renders the ink more permanent and less liable to mould. It is blue when first written with, but soon becomes an intense black. It is a true solution, and in composition nearly resembles that of P. & J. Arnold.
- (25) C. ●. ●. says: I am using tin for plating; it works well for a time, but becomes hard by being heated so often. What can I do to make it flow more freely? A. This is probably due to impurity in the bath. You should state what are the character and the composition of the articles plated.
- (26) R. S. W. asks: How can brass be melted on a small scale, by amateurs? A. The operation is rarely at first accomplished by amateurs without considerable difficulty. It requires a good furnace, capable of fusing copper, and a crucible capable of withstanding the high temperature. For this latter reason black lead crucibles are generally employed. The crucible is placed in the newly made fire, so as to heat up gradually. When well heated, place in your copper in small pieces, and force your fire until the copper is just fluid: then place in your zinc, stirring the fused alloy meanwhile. Do not allow the temperature to rise too high, as in this case a great part of the zinc will be volatilized, and, coming into contact with the air, will become ignited and converted into a copious white vapor of oxide of zinc. It is advisable to keep the surface of the fused metal covered with a quantity of chloride of ammonium (salammoniae), in order to preserve the sur face free from oxide and clean.
- (27) H 'T. C. asks: Is there any scientific method by which to ascertain the depth to water underground, without digging or boring? A. No.
- (28) W. A. D. asks: 1. Is there an article of the nature of oilcloth, or thin rubber cloth, that can be put over a frame about 3 feet square, and heated, from underneath, to a temperature of from 100° to 140° or 150° Fah., and will admit of a shower of water being thrown on immediately after the discharge of heated air, without injury to the covering or any disagreeable odor from the material? It must needs be airtight and watertight. A. Try a suitable modification of asbestos cloth. 3. What material could I get for heating the space in the manner described? A. Try gas manufactured from a suitable light coal oil.
- (29) J. A. says: I have seen an argument that, the centrifugal and centripetal forces at work in the earth's rotation not being equal, the earth is consequently hollow. What are the centrifugal and centripetal forces in this connection? A. Consult "Sketches of Creation," by Professor Winchell, pp. 36-60.
- (30) A. E. says: I have been troubled for a long time with my well water. The well is over 40 feet deep; the water is dericious, clear, and cool; and yet, on holding a glass of it between you and the sunlight or lamplight, you can see minute living creatures. I have discovered two species. There are also earth worms occasionally drawn up in the bucket. Will you tell me the cause of these appearances? A. It is very unusual for animal life to be developed in water of such a character as you describe. The earth worms have probably gotten in accidentally, and the living creatures may not have come from germs present in the water itself. 2. Is wholesome water ever found in this condition? A. If you fill a quart pose, subject to the charge mentioned at the head bottle half full of the water, close it with a good of that column. Almost any desired information cork, put it in a warm room, and then after a can in this way be expeditiously obtained. time find on opening the bottle there is no smell, the water is probably wholesome.
- (31) J. J. . asks: 1. Why will not aniline yellow (lemon) and aniline blue mix? A. They are used separately-first the blue, and finally the yellow-in order to obtain the desired shade of green. 2. What colors can I take that will make any shade of green ink I may want? A. Verdigris dissolved in acetic acid gives an elegant green.
- (32) W. H. B. asks: Is there any way to remove printed matter from postal cards, sufficient ly to allow the surface to be legibly written over? A. Remove the printing by means of a sharp steel eraser, and polish with a good bone or ivory paper
- 1. How can I make a liquid preparation to apply to cuts and bruises, such as will quickly dry and form an artificial cuticle? A. Use collodion. 2. Is collodion dissolved in ether a good preparation for this purpose? A. Yes. 3. Can collodion be dissolved in alcohol? A. Collodion is a solution of negative cotton in ether, or a mixture of ether and alcohol. Gun cotton is insoluble in alcohol alone.
- (33) F. A. H. asks: Can a good durable white ink be made? If so, what are the ingredients? A. Shake up a little finely ground oxide of zinc with a small quantity of gum water. This, we think, will answer your purpose.
- (34) ●. M. S. says: How do you compound nitric acid with water so as to give galvanized iron the snowflake finish? A. Use muriatic acid 3 parts, nitric acid 1 part, and water 3 parts: wash immediately afterward with pure water.

Why does metal blister afterit comes out of the water, immediately after galvanizing? A. This may be due to the fact of the metallic surface not having been perfectly clean, or on account of the too rapid cooling of the surface.

(35) C. W. B. asks: How can I crystallize alum, so that it will adhere readily, in quantity and in regular forms? A. Make a concentrated

solution of the salt in boiling water, and set it aside to cool slowly.

(36) C. L. C. says: Agrain of corn consists of the heart or soft part (the germ) and a hard portion; which of these would produce the most spirits, starch, and sugar, respectively? What difference is there in the chemical composition between the hard and soft parts? A. We do not find any published statement that furnishes the desired information, and an experimental investigation would require considerable time.

(37) J. S. asks Is there anything that can be mixed with glue to make it harder? A. Try the following: Melt together equal parts of common pitch and gutta percha. Apply hot.

MINERALS, ETC. - Specimens have been re ceived from the following correspondents, and examined, with the results stated:

J.C.B. F.-It is sulphide of iron.-C.B. K.-It is a rock composed of felspar and hornblende. The brilliant yellow metallic particles are sulphide of iron.-D. H.-It is decomposed potash mica. For a possible advantageous use of such mica, see an article by Professor Leeds in the Gardener's Monthly for August, 1875.—E. A. H.—You are right. A further examination, however, shows that these specimens contain a small percentage of lime and silicic acid. It is largely used in the manufacture of paints, for which the mineral sent would answer.-M. M. C.-It is difficult to account for the presence of such a mass of the mineral which you send, at the bottom of a well. It is sulphide of iron. Such concretions sometimes occur, but the fact of one being in a well may be due to acci-

#### COMMUNICATIONS RECEIVED.

The Editor of the SCIENTIFIC AMERICAN ac knowledges, with much pleasure, the receipt of original papers and contributions upon the follow

On Large and Small Wygon Wheels. By S. L. M. On Tens and Hundreds. By W. S. H. On Weather Predictions. By M. O'R.

On the Keely Motor. By F. K. On Railroad Cars. By S.

On Repairing Bells. By T. K. A.

On Natural Phenomena and Temperatures. By On Mouse Traps. By C.R.

On the Relation of Time and Movement. By A. W. Also inquiries and answers from the following: G. V. B.-J. G.-R. S. W.-J. T. F.-B. S.-H. D.-W. B. W.-J. G. A.-J. C. W.-J. S.

#### 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 declines them. The address of the writer should always be given.

Enquiries relating to patents, or to the patentability 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 by mail, if the writer's address is given.

Hundreds of inquiries analogous to the following are sent: "Who makes an air or steam engine suitable for driving a sewing machine? Who sells podometers? Who sells machines for making matches? Who sells steel drills, used in riveting crockery and glass? Who sells mica in sheets?" All such personal inquiries are printed, as will be observed, in the column of "Business and Personal," which is specially set apart for that pur-

OFFICIAL.

#### INDEX OF INVENTIONS

Letters Fatent of the United States were Granted in the Week ending September 21, 1875.

AND EACH BEARING THAT DATE. [Those marked (r) are reissued patents.]

 Bale-rolling attachment, H. Keiset
 107,950

 Bale tie, W. H. Walker
 167,960

 Bed bottom, spring, I. N. & M Hoyt
 167,902

 Bed bottom, spring, A. T. Sherwood
 168,056

 Bedstead fastening, C. T. Laib
 167,909

 Bedstead fastening, C. T. Laib
 167,909

 Belt and band, driving, E. G. Isaacs......................... 167,838 Belt and Dand, driving, E. G. Isaacs. 101,302
Belting, clasp for machine, G. H. Fox. 167,832
Blind, inside Venetian, J. Seaman 167,912
Blind slat adjuster, G. A. Myers. 167,923
Blind slats, compressing ends of, E. Cather. 157,824 

 Bilnd. Venetian, T. Fuyat.
 167,889

 Bolt, F. E. S. Crane.
 167 828

 Book supporter, R. T. Stoddard.
 168,951

 Boot and shoe, M. Robling.
 168,051

 Boot and shoe fastening, H. E. Dennett.
 167,839

 Boot and shoe heel, R. Vint.
 167,959

 Boot channel opener etc., T. L. Miller.
 168,045
 Brick for constructing retorts, M. Foster...... 167,831 

 Bridle bit, B. L. Rowley (r).
 6,656

 Buckle, D. L. Smith.
 167,947

 Buckle, D. L. Smith.
 167,917

 Buckle, harness, T. J. Magruder.
 167,917

 Burner, lamp, A. Taplin (r).
 6,650

 Burnisher holder, A. Swallow.
 167,953

 Button hook, Rasines & Power
 167,953

 Button hook, Rasines & Power 167,937
Buttons, attaching, D. Heaton 168,016 

 Buttons, attaching, D. Heaton
 165,000

 Can, metallic, G. W. Bell
 167,870

 Can paint, J. F. Drummond
 168,001

 Car coupling, G. H. & C. L. McGlothlen
 168,001

 Car heater, railroad, E. H. Ashcroft (r)
 6,652

 Car poles, draw iron for street, L. C. Prouty
 167,933

 Car, sleeping, Field & Pullman (r)...... 6,648 Car, sleeping, E. P. Kellogg...... 168,027

Carriage spating, J. Cunningham.  167,907 E. Carriage spring, H. M. Curtis.  167,932 E. Carriage spring, J. Freedemburgh.  167,932 E. Carriage spring, J. Freedemburgh.  167,932 E. Carriage spating, J. Freedemburgh.  167,936 E. Carriage spating, J. Carriage spati		Cars, drawbar for street, F. F. Adams	167,968 168,048	R
Carriage spring, H. M. Curtis, 167,992 B. Carriage spring, H. M. Curtis, 167,993 B. Carriage spring, J. Fredenburgh. 167,898 B. Carriage spring, J. Fredenburgh. 167,898 B. Cement, marbie, A. Boag		Carpetstretcher, B. Darragh	167,876	R
Carridge spring, J. Fréenburgh.   167,388   R. Cement, marble, A. Bong   167,379   R. Cement, marble, A. Bong   167,379   R. Cemetring activete, M. T. Greenwood.   167,382   R. Centering activete, M. T. Greenwood.   167,382   R. Centridgel machine, C. C. Webber.   167,382   R. Charlette, M. C. Charlette, M. C. C. Bruon.   167,382   R. Charlette, M. C. C. Bruon.   167,383   R. Charlette, L. Ancaster   167,383   R. Churn, E. Groat.   167,383   R. Churn, E. Groat.   167,383   R. Churn, E. Groat.   167,383   R. Churn, E. W. P. Mangum.   167,385   R. Churn, E. W. P. Mangum.   167,385   R. Churn, E. Masher.   168,001   R. Churn, E. Groat.   168,001   R. Churn, E. Groa	ļ	Carriage spring, J. Cunningham	167,931 :	Re
Cement, marble, A. Bosg   167,999   R. Centerfrugal machine, C. C. Webber   167,952   R. Centerfrugal machine, C. C. Webber   167,952   R. Chandeller, F. McLewee   167,954   R. Chandeller, F. McLewee   167,954   R. Chandellers, clutch for, E. C. Bruen   167,954   R. Church pew, I. Lancaster   167,950   S. Churt, E. Groter   167,800   S. Churt, E. Groter   168,001   S. Churt, E. Groter   167,303   S. Churt, E. Groter   168,001   S. Churt, E. Churt, E. Groter   168,001   S. C		Carrylage spring, J. Fredenburgh	167,888	Re
Centriqual machine, C. C. Webber		Cement, marble, A. Boag	167,979	R
Chankellers, clutch for, E. C. Bruen.   517,394   R. Church pew, I. Lancaster   517,100   St. Churn, E. Grotat.   517,300   St. Churn, E. Grotat.   517,300   St. Churn, E. Grotat.   517,300   St. Churn, E. Husher.   516,501   St. Churn, E. Husher.   516,501   St. Churn, W. P. Mangum.   517,301   St. Churn, W. Totat.   517,301   St. Churn, W. Churn, W. Totat.   517,301   St. Churn, W. Totat.		Centrifugal machine, C. C. Webber	167,962	R
Churn, E. Husher.  Churn, W. P. Mangum.  167,918  Cigar box, revenue stamp, F. C. Hamilton.  167,918  Clock case, W. N. Weeden.  167,963  Cloth press, W. Hebton.  167,963  Cloth press, W. Hebton.  167,963  Cook.  167,963		Chandeliers, clutch for, E. C. Bruen	167,984	Re
Churn, E. Husher.  Churn, W. P. Mangum.  167,918  Cigar box, revenue stamp, F. C. Hamilton.  167,918  Clock case, W. N. Weeden.  167,963  Cloth press, W. Hebton.  167,963  Cloth press, W. Hebton.  167,963  Cook.  167,963		Chuck, planer, H. Thomas	163,064 167,910	Ro
Churm, W. P. Mangum, 167,318 Sa (Clock case, W. N. Weesten 163,043 Sa (Clock case, W. N. Weesten 167,063 Sa (Clock case, W. N. Weesten 167,063 Sa (Cloth press, W. Hebdon 167,063 Sa (Colth press, W. Hebdon 167,063 Sa (Colthon press, W. Hebdon 167,063 Sa (Colthon press, W. Hebdon 167,063 Sa (Colthon press, W. Hebdon 167,073 Sc (Coal hot, G. Seyfang, 167,073 Sc (Cock, glassgage, Bee & Garrette) 167,373 Sc (Cock, glassgage, Bee & Garrette) 167,373 Sc (Cock, glassgage, Bee & Garrette) 167,373 Sc (Cooking apparatus, steam, G. H. Ferris, 167,385 Sc (Corsett, D. H. Borne 167,385 Sc (Corsett, D. H. Borne 167,385 Sc (Cryotle, accomposing, F. E. Vanaercook 167,385 Sc (Cryotle, 40composing, H. Burgess 167,386 Sc (Cryotle, 40composing, H. Burgess 163,386 Sc (Cryotle, 40composing, H. Burgess 168,073 Sc (Cryotle, 40composing, H. Burgess 168,073 Sc (Cryotle, 40composing, H. Burgess 167,386 Sc (Cryotle, 40composing, H. Burgess 168,02 Sc (Cryotle, 40composing, H. Burgess 168,03		Churn, E. Groat.	167,893	Sa
Ciock case, W. N. Weeden		Churn, W. P. Mangum	167,918	Sa
Coal-had, G. Seyfang. 167,837   S. Coal had, G. Seyfang. 167,837   S. Coal had rourner, Brooke & Wright. 167,837   S. Cock, glass gage, Bee & Garrett. 167,839   S. Condensing vapors, gases, etc. Speir & Mather. 168,660   S. Cooking apparatus, steam, G. H. Ferris. 167,838   S. Corset, D. H. Horne 167,838   S. Countrasia, T. P. Farren. 167,838   S. Cralie rocking & Ford. 167,838   S. Doil, walking, A. E. Hotchkiss. 167,339   S. Doil, walking, A. E. Hotchkiss. 167,339   S. Drill, rock, G. Frisbee. 168,010   S. Drill, rock, G. Frisbee. 168,023   S. Electric machine. magneto-0, Helkel 168,038   S. Electric machine. magneto-0, Helkel 168,035   S.	l	Clock case, W. N. Weeden	167,963	Sa
Copt lars ourner, Brooke & Wright. 167,873   Scock, shower and bath, H. J. Balley. 167,817   Scondensing wappers, gases, etc. Speir & Mather. 168,660   Stocked, D. H. Horne 167,880   Stocked, D. H. Horne 167,880   Stocked, D. H. Horne 167,881   Stocked, D. Horne 167,881   S		Coal-agglomerating press, A. G. Lasserre	168 031	Sa
Cock, shower and bath, H. J. Balley	į			Sa Sc
Condensing vapors, gases, etc. Speir & Mather. 186,866   St. Corost in Stephen   167,898   St. Corset D. H. Horne   167,898   St. Corset D. H. Horne   167,898   St. Cornet fastening, F. E. Vandercook.   167,898   St. Countersink, T. P. Farmer   168,808   St. Cyolite, decomposing, H. Burgess.   167,896   St. Cyolite, decomposing, H. Burgess.   167,896   St. Cyolite, decomposing, H. Burgess.   167,896   St. Darn, adjustable, W. Smith.   168,012   St. Darn, adjustable, W. Smith.   168,012   St. Darn, adjustable, W. Smith.   168,012   St. Dental engines, fan for, Hopkins & Betler   168,023   St. Dental engines, fan for, Hopkins & Betler   168,023   St. Dental engines, fan for, Hopkins & Betler   167,895   Sp. Drill, rock, G. Frisbee.   168,001   St. Door spring, O. F. Comfort   167,895   Drill, rock, G. Frisbee.   168,001   St. Door spring, O. F. Comfort   167,895   Sp. Drill, rock, G. Frisbee.   168,001   St. Drills, ratche ine. magneto-0, Helkel   168,018   St. Elevator, grain, E. Körting   168,025   St. Elevator, grain, E. Körting   168,025   St. Elevator, grain, E. Körting   168,025   St. Engines, dash pot for, c. Steele.   167,396   St. Parines, dash pot for, c. Steele.   167,396   St. Parines, dash pot for, c. Steele.   167,395   St. Parines, dash pot for, c. St. Parines, dash pot for, c. St. Parines, dash pot for, c. St				Se Se
Corser, D. H. Horme		Condensing vapors, gases, etc Speir & Mather	168,060	Sh
Countersink, T. P. Farmer. 167,880   Sc. Cryolite, 4ecomposing, H. Burgess. 167,866   St. Cryolite, 4ecomposing, H. Burgess. 167,866   St. Cryolite, 4ecomposing, H. Burgess. 167,866   St. Cultivator, Windeld & Flynn. 168,074   St. Darn, adjustable, W. Smith. 168,023   St. Dental enforceps, L. J. P. E. Gallard 168,023   St. Doll, walking, A. E. Hotchkiss. 167,899   Sp. Drill, rock, G. Frisbee. 168,000   St. Door spring, O. F. Comfort. 167,389   Sp. Drill, rock, G. Frisbee. 168,000   St. Drills, ratche brace, H. C. Hart. 167,387   Sp. Elevtrong hanger, W. H. & H. W. Trissler. 167,395   St. Elevtrong, rain, E. Körting 168,000   St. Elevtron, grain, E. Körting 168,000   St. Pancet, vent, R. Brenner. 167,395   St. Pence, farm, J. E. Wilsters 167,395   St. Pence, farm, J. Pence, farm, J. Pence, farm, J. Pence, farm, J. Pence, fa	l	Corset. D. H. Horne	167,898	Sh
Cryolite, decomposing, H. Burgess. 167,396 St. Ontilivator, Winfield & Flynn. 168,074 St. Darn, adjustable, W. Smith. 168,081 St. Dental engines, fan for, Hopkins & Betler. 168,023 St. Doll, walking, A. E. Hotchkiss. 167,393 St. Doll, walking, A. E. Hotchkiss. 167,393 St. Doll, walking, A. E. Hotchkiss. 167,393 St. Dorl, Tock, G. Frisbee. 168,000 St. Drills, ratche brace, H. C. Hart. 167,395 St. Drills, ratche hier. 168,000 St. Drills, ratche hier. 168,000 St. Drills, ratche hier. 168,000 St. Electric machine. magneto-0, Helkel. 168,035 St. Electric machine. magneto-0, Helkel. 168,035 St. Electric machine. magneto-0, Helkel. 168,035 St. Engines, tash pot for, c. Steele. 167,395 St. Pancet, vent, R. Brenner. 167,395 St. Pancet, vent, R. Brenner. 167,395 St. Fancet, vent, R. Brenner. 167,395 St. Fancet, vent, R. Brenner. 167,395 St. Fence, farm, J. E. Wilsters 167,395 St. Fence, farm, J. E. Wilsters 167,395 St. Fence, farm, J. E. Wilsters 167,395 St. Firch wheel, W. A. Parker 167,395 St. Firch place blower, J. C. Kenneday, 167,395 St. Firch hier, C. A. Maymara. 167,395 St. Firch hier, M. St. St. Maymara. 167,395 St. Firch hier, M.	ĺ	Countersink, T. P. Farmer	167,884	Sh
Dam, adjustable, W. Smith. 167,496   168,023   Si Dental enfense, fan for, Hopkins & Belder   168,023   Si Dental forceps, L. J. P. E. Gallard   168,021   So Dorly, R. W. C. Wether!!!   167,863   Sc Doil, walking, A. E. Hotchkiss.   167,893   Sp Drill, rock, G. Frisbee.   168,010   St Drills, ratche brace, H. C. Hart.   167,879   Sp Drill, rock, G. Frisbee.   168,010   St Drills, ratche brace, H. C. Hart.   167,893   Sp Drill, rock, G. Frisbee.   168,001   St Drills, ratche here.   168,010   St Drills, ratche, and here.   168,025   St Engines, dash pot for, r. Steele.   167,350   St Faucet, vent. R. Brenner.   167,821   St Pellies and tires, clipfor, R. Ray.   167,831   St Pellies and tires, clipfor, R. Ray.   167,927   St Pellies and tires, clipfor, R. Ray.   167,927   St Pellies and tires, clipfor, R. Ray.   167,927   St Pice catting machine feed, J. Garland   167,833   Fire escape, F. M. Harman   167,841   St Pice place hower, J. C. Kenneday   167,966   St Pire kindler, C. A. Maynard   167,891   Fire place hower, J. C. Kenneday   167,996   Trult and jelly press, Oos and Boatwick   167,297   Tuel, artificial, E. F. Loiseau   167,991   Trult and jelly press, Oos and Boatwick   167,297   Tuel, mixing artificial, E. F. Loiseau   167,991   Turnace for brick kilns, W. S. Colwell   67,891   Tuel, mixing artificial, E. F. Loiseau   167,891   Gas apparatus		Cryolite, decomposing, H. Burgess	167,986	Sh
Dental engines, fan for, Hopkins & Beiler.   188,023   So   Derrick, W. C. Wetherill   167,863   So   Derrick, W. C. Wetherill   167,863   So   Derrick, W. C. Wetherill   167,863   So   Door spring, O. F. Comfort   167,863   So   Door spring, O. F. Comfort   167,863   So   Door spring, O. F. Comfort   167,863   So   Drills ratchet brace, H. C. Hart.   167,863   So   Drills ratchet brace, H. C. Hart.   167,863   So   Drills ratchet brace, H. C. Hart.   167,863   So   Electric machine, magneto-O. Helkel   167,863   So   Electric machine, magneto-O. Helkel   168,025   Si   Electric machine, magneto-O. Helkel   168,025   Si   Elevator, grain, E. Körtlind   168,029   St   Engines, dash pot for, e. Seele.   167,360   St   Pancet, vent, R. Brenner.   167,860   St   Pancet, vent, R. Brenner.   167,861   St   Pancet, vent, R. Brenner.   167,861   St   Prick helder, W. A. Parker   167,267   St   Prick helder, W. A. Parker   167,267   St   Prick helder, W. A. Parker   167,267   St   Prick extinguisher, E. H. Ashrorit (r).   6,653   Trick extinguisher, E. H. Ashrorit (r).   6,653   Frie extinguisher, E. H. Ashrorit (r).   6,653   Frie extinguisher, E. H. Ashrorit (r).   6,653   Frie chindler, C. A. Maynard.   167,861   Friel, and jelly press, Cook and Bostwick   167,867   Freel, artificial, E. F. Loiseau.   167,914   Trel, mixing artificial, E. F. Loiseau.   167,914   Trel, mixing artificial, E. F. Loiseau.   167,914   Trel, mixing artificial, E. F. Loiseau.   167,915   Gas apparatus, F. H. Elichhaum   188,066   To   Gas apparatus, F. H. Elichhaum   188,066   Gas apparatus, F. H. Elichhaum   188,066   Gas apparatus, F. H. Elichhaum   188,066   Gas apparatus, F. H. Elichhaum   188,067   Gas making, T. W. Llon   167,844   V   Gate hinge and closting rot, W. H. McCormick   188,040   Gran, standing, T. W. Llon   167,844   V   Gate hinge and closting rot, W. H. McCormick   188,040   Gran, standing, T. W. Llon   167,854   V   Gate hinge and closting rot, W. H. McCormick   188,060   Gran, standing, T. W. Llon   167,854   V   Ga				St
Derrick, W. C. Wetherill		Dental engines, fan for, Hopkins & Beidler	168,023	Si
Door spring, O. F. Comfort   167,989   50   Drilli, rock, G. Frisbee   168,010   St. Drilli, ratchet brace, H. C. Hart   167,997   52   Elevator, grain, E. Körting   168,018   St. Elevator, grain, E. Körting   168,038   St. Elevator, grain, E. Körting   168,038   St. Elevator, grain, E. Körting   168,039   St. Elevator, grain, E. Körting   168,039   St. Brainer, vent, R. Brenner   167,820   St. Faucet, basin, J. Donning   167,890   St. Faucet, basin, J. Donning   167,890   St. Faucet, basin, J. Donning   167,890   St. Faucet, basin, J. Donning   167,893   St. Faucet, basin, J. Donning   167,893   St. Faucet, vent, R. Brenner   167,821   St. Fellies and tires, clipfor, R. Ray   167,893   St. Fellies and tires, clipfor, R. Ray   167,893   St. Fitch wheel, W. A. Parker   167,825   St. Fitch wheel, W. A. Parker   167,821   St. Fitch wheel, W. A. Parker   167,821   St. Fitch wheel, C. A. Maynard   167,837   Fitre excapte, F. M. Harrmann   168,015   Fitre extinguisher, E. H. Ashcroft (r)   6,653   Fitre extinguisher, E. H. Ashcroft (r)   6,653   Fitre kindler, C. A. Maynard   167,900   Fitre extinguisher, E. H. Ashcroft (r)   6,653   Fitre kindler, C. A. Maynard   167,900   Fitre kindler, C. A. Maynard   167,901   Fitre kindler, C. E. Donnellan   167,901   Gas apparatus, F. H. Elchbaum   168,001   Gas apparatus, F. H. Elchbaum   168,001   Gas making, T. S. C. Lowe   167,891   Grat alarm, G. H. Eastman (r)   167,891   Grat alar		Derrick, W. C. Wetherill	167,863	So
Drilla ratchet brace, H. C. Hart.   167,897   SE acves trough hanger, W. H. & H. W. Trissler.   167,895   SE Elevator, grafin. E. Körting.   168,018   SE Elevator, grafin. E. Körting.   168,029   SR Engine, rotary, W. Lyon.   168,803   SR Engines, dash pot for, e. Steele.   167,895   SE Paucet, basin, J. Donning.   167,895   SF Paucet, vent, R. Brenner.   167,895   SF Pitte wheel, W. A. Parker   167,895   Fifth wheel, W. A. Parker   167,895   Fifth wheel, W. A. Parker   167,895   Fifth wheel, M. Parker   167,895   Fifth wheel, M. Parker   167,895   Fifte excapte, F. M. Harrman.   168,015   Fire extinguisher. E. H. Ashcroft (r)   6,653   Fire extinguisher.   167,994   Fire place blower. J. C. Kenneday.   167,994   Fire place blower. J. C. Kenneday.   167,994   Fire place blower. J. Nader.   167,894   Fire place blower. J. Nader.   167,894   Fire place blower. J. Nader.   167,895   Gas mating, J. R. Leibaum.   167,894   Fire place blower.   167,895   Gas mating, T. W. Lion   167,894   Fire place blower.   167,895   Gas mating, T. S. C. Lowe.   167,895		Door spring, O. F. Comfort	167,989	Sp
Electric machine. magneto. O. Heikel.   168,018   Elevator, grain. E. Körting   168,028   Engine, rotary, W. Lyon.   168,035   Engine, asha pot for, c. Steele.   167,590   Faucet, basin, J. Donning.   167,880   Fancet, vent, R. Brenner.   167,881   Fellies and tires. clipfor, R. Ray.   167,883   Fence, carm, J. E. Winters   167,666   Fifth wheel, W. A. Parker   167,666   Fifth wheel, W. A. Parker   167,897   Fifthe-cutting machine feest, J. Gariand   167,883   Fire escape, F. M. Harman   168,015   Fire extinguisher. E. H. Asheroft (r)   6,653   Fire extinguisher. E. H. Asheroft (r)   6,653   Fire kindler, C. A. Maynard   167,849   Fire place blower. J. C. Kenneday   167,060   Fruit and jelly press, Cook and Bostwick   167,897   Fuel.artificial, E. F. Loiseau   167,914   Fuel.mixing artificial, E. F. Loiseau   167,914   Fuel.mixing artificial, E. F. Loiseau   167,914   Furnace for brick kilns, W. S. Colwell   167,886   Gas apparatus, F. H. Eichbaum   168,005   Gas apparatus, F. H. Eichbaum   168,005   Gas mains, frain for, J. Nader   167,841   Gas check for ordinance, L. W. Broadwell   167,841   Gas check for ordinance, L. W. Broadwell   167,841   Gas check for ordinance, L. W. Broadwell   167,841   Gas making, T. W. Lion   167,841   Gas mains, frain for, J. Nader   167,845   Gas mains, frain for, J. Nader   167,845   Gas making, T. W. Lion   167,841   Gas mains, frain for, J. Nader   167,845   Gas mains, frain for, J. White   167,845   Gas mains, C. Lowe   167,847   Gate hinge and closing rod, W. H. McCormick   168,040   Generator, furnace grate, A. Winton   168,040   Generator, furnace machine, S. Espach   167,855   Grain hinder, C. E. Donnollan   167,994   Harrow, J. W. Price   167,885   Hat brushing machine, J. H. Bussell   167,895   Hat brushing machine, J. H. Bussell   167,895   Heat trimming machine, J. G. H. House	ĺ			Sp Sp
Elevator, grain. E. Körtling   168,029   Sengine, rotary, W. Lyon   168,035   Sengines, dash pot for, c. Steele   167,950   Sencet, went, R. Brenner   167,850   Sencet, vent, J. E. Wilnters   167,850   Sencet, vent, J. E. Wilnters   167,853   Sencet, vent, J. E. Wilnters   167,955   Sencet, vent, J. E. Wilnters   167,955   Sencet, vent, J. E. Wilnters   167,953   File-cutting machine feed, J. Garland   167,853   Fire excape, F. M. Harman   168,015   Fire exchapter, C. A. Maynard   167,495   Fire piace blower, J. C. Kenneday   167,865   Fire kindler, C. A. Maynard   167,496   Tenter piace blower, J. C. Kenneday   167,867   Five piace blower, J. C. Kenneday   167,966   Tenter piace blower, J. C. Kenneday   167,966   Tenter piace blower, J. C. Kenneday   167,967   Tenter piace blower, J. C. Kenneday   167,957   Tenter piace blower, J. C. Kenneday   167,957   Tenter piace blower, J. C. Houts   167,957   Gas making, T. W. Llon   167,841   Gas making, T. W. Llon   167,841   Gas, making, T. W. Llon   167,957   Gate, automatic, L. E. Thorson   167,957   Gate, automatic, L. E. Thor	İ			St St
Engines, 4ash pot for, s. Steele.   167,390   Fancet, vent, R. Brenner.   167,820   Fancet, vent, R. Brenner.   167,821   Fellies and tires. clipfor, R. Ray.   167,328   Fellies and tires. clipfor, R. Ray.   167,328   Friencuting machine feea, J. Gariand   167,833   Friencuting machine feea, J. Gariand   167,333   Fire extanguisher. E. H. Asheroft (r).   6,653   Fire kindler, C. A. Maynard   167,830   Fire extinguisher. E. H. Asheroft (r).   6,653   Fire kindler, C. A. Maynard   167,493   Fire place blower. J. C. Kennesay.   167,966   Filour packer cut-off, A. M. Hobbs   168,020   Filour packer cut-off, A. M. Hobbs   168,020   Fruit and jelly press, Cook and Bostwick.   167,837   Fuel, mixing artificial, E. F. Loiseau.   167,313   Furnace for brick kilns, W. S. Colwell   167,836   Garments, machine for cutting out, J. L. Fr;   168,011   Gas apparatus, J. H. Pugh.   168,400   Gas apparatus, J. H. Pugh.   168,400   Gas check for ordanance, L. W. Broadwell   167,831   Gas making, T. W. Lion   167,844   Gas making, T. W. Lion   167,844   Gas making, T. W. Lion   167,847   Gate hinge and closing rod, W. H. McCormick   168,060   Generator, J. Felber.   167,837   Grath particution   167,937   Grist alarm, G. H. Eastman (r)   6,655   Grain, steaming, J. C. Hunt   167,837   Grain binder, C. E. Donnellan   167,937   Grist alarm, G. H. Eastman (r)   6,655   Harrow, J. W. Price.   167,838   Harness cockeye, Schneleer and Meek   168,061   Harrow, J. W. Price.   167,838   Harness cockeye, Schneleer and Meek   168,063   Harrow, J. W. Price.   167,838   Harness cockeye, Schneleer and Meek   168,064   Harrow, J. W. Price.   167,395   Hat brushing machine, Silver and Swords   167,995   Hat brushing machine, Silver and Swords   167,995   Hat brushing machine, Silver and Swords   167,995   Hat brushing machine, J. H. Bussell   167,995   Hat brushing machine, J. H. Bussell   167,995   Horse book J. J. B. Hall   167,995   Horse book J. J. Watson   168,062   Horse power, N. Potter   167,995   Horse power, N. Potter   167,995   Horse		Elevator, grain, E. Körting Engine, rotary, W. Lven	168,029 168,035	St
Fancet, vent, R. Brenner.   167,821   Felilles and tires. clipfor, R. Ray.   167,398   Fence, farm, J. E. Winters   167,396   Fifth wheel, W. A. Parker   167,395   File-cutting machine feed, J. Garland   167,833   Fire exesape, F. M. Harman   168,013   Fire exesape, F. M. Harman   168,013   Fire extensible for the Asherott (r)   6,653   Fire kindler, C. A. Maynard   167,893   Fire place blower, J. C. Kenneday   167,895   Fire place blower, J. C. Kenneday   167,895   Fire place blower, J. C. Kenneday   167,895   Fire place blower, J. C. Kenneday   167,896   Flour packer cut-off, A. M. Hobbs   168,030   Fruit and jelly press, Cook and Bostwick   167,897   Fuel, mixing artificial, E. F. Loiseau   167,914   Fuel, mixing artificial, E. F. Loiseau   167,913   Furnace for brick kilns, W. S. Colwell   167,897   Garments, machine for cutting out, J. L. Fry   168,011   Gas apparatus, F. H. Elchbaum   168,000   Gas apparatus, J. H. Pugh   168,491   Gas making, T. W. Lion   167,881   Gas making, T. W. Lion   167,881   Gas, making, T. W. Lion   167,881   Gas, making, T. W. Lion   167,884   Gas making, T. W. Lion   167,884   Gate hinge and closing rod, W. H. McCormick   168,005   Gate hinge and closing rod, W. H. McCormick   168,005   Governor, J. Felber   167,885   Grain, steaming, J. C. Hunt   167,897   Grist alarm, G. H. Eastman (r)   6,655   Grain binder, C. E. Donnellan   167,997   Grist alarm, G. H. Eastman (r)   6,655   Harrow, J. W. Price   167,382   Harrow and cultivator, J. W. Dilley   167,893   Harrow, J. W. Price   167,383   Harrow, J. W. Price   167,385   Harrow, J. W. Ball   167,395   Harrow and cultivator, J. W. Dilley   167,895   Harrow and cultivator, J. W. Dilley   167,895   Harrow and cultivator, J. W. Dilley   167,996   Harrow, J. W. Bally   167,896   Harrow, J. W. Bally   167,895   Hore power, N. Potter   167,891   Harrow and cultivator, J. W. Dilley   167,895   Hore power, N. Potter   167,891   Harrow and cul	1	Engines, dash pot for, r. Steele.	167,950	St
Fence, farm, J. E. Winters   167,966   Fifth wheel, W. A. Parker   167,927   Fifth cutting machine feed, J. Garland   167,833   Fire excape, F. M. Harman   168,015   Fire extinguisher. E. H. Ashcroft (r)   6,655   Fire kindler, C. A. Maynard   167,893   Fire place bower, J. C. Kenneday   167,896   Fire place bower, J. C. Kenneday   167,996   Fire place bower, J. C. Kenneday   167,997   Full and place bower, J. C. Kenneday   167,997   Full and place bower, J. C. Kenneday   167,997   Garments, machine for cutting out, J. L. Fry   168,000   T. Garments, machine for cutting out, J. L. Fry   168,001   Gas apparatus, J. H. Pugh   168,493   Gas check for ordinance, L. W. Broadwell   167,987   Gas, making, T. W. Llon   167,887   Gas, making, T. W. Llon   167,887   Gas, making, T. W. Llon   167,887   Gate hinge and closing rod, W. H. McCormick   168,007   Governor, J. Felber.   167,887   Governor, J. Felber.   167,885   Grain, steaming, J. C. Hunt   167,887   Grain, steaming, J. C. Hunt   167,887   Grain, steaming, J. C. Hunt   167,887   Grain indeer, C. E. Donnellam   167,997   Grist alarm, G. H. Eastman (r)   6,655   Harrows, J. W. Price   167,382   Harrow, J. W. Price   167,382   Harrow, J. W. Price   167,382   Harrow, J. W. Price   167,383   Harrow, J. W. Price   167,383   Harrow, J. W. Price   167,385   Harbushing machine, Silver and Swords   167,885   Harbushing machine, Silver and Swords   167,885   Harbushing machine, J. H. Bussell   167,895   Harbushing machine, J. H. Bussell   167,895   Harbushing machine, J. H. Bussell   167,895   Harbushing machine, J. K. Hunter   167,891   Hardushing machine, J. C. Luttle   167,891   Harbushing machine, J. C. Luttle   167,891   Harbushing machine, J. Stewart   16		Fancet, vent, R. Brenner	167,821	St
File-cutting machine feed, J. Garland   167,833 T  Fire extinguisher. E. H. Ashcroft (r)   6,831 T  Fire extinguisher. E. H. Ashcroft (r)   6,831 T  Fire place plower. J. C. Kenneday   167,962 T  Fire place plower. J. C. Kenneday   167,962 T  Fire place plower. J. C. Kenneday   167,962 T  Four packer cut-off, A. M. Hobbs   168,020 T  Fruit and pelly press, Cook and Bostwick   167,931 T  Fuel, mixing artificial, E. F. Loiseau   167,131 T  Fuel, mixing artificial, E. F. Loiseau   167,131 T  Fuel, mixing artificial, E. F. Loiseau   167,313 T  Furnace for brick kilns, W. S. Colwell   167,381 T  Fuel, mixing artificial, E. F. Loiseau   167,311 T  Gas apparatus, J. H. Pugh   168,491 T  Gas apparatus, F. H. Elchbaum   168,065 T  Gas apparatus, J. H. Pugh   168,491 T  Gas making, T. W. Lion   167,841 T  Gas, making, T. W. Lion   167,841 T  Gas, making, T. W. Lion   167,841 T  Gas, making, T. W. Lion   167,841 T  Gate, automatic, L. E. Thorson   167,841 T  Gate hinge and closing rod, W. H. McCormick   167,847 T  Gate hinge and closing rod, W. H. McCormick   168,060 T  Gate hinge and closing rod, W. H. McCormick   168,060 T  Gate hinge and closing rod, W. H. McCormick   168,060 T  Grain steaming, J. C. Hunt   167,837 W  Governor, J. Felber   167,882 W  Grain, steaming, J. C. Hunt   167,837 W  Grist alarm, G. H. Eastman (r)   6,6855 W  Harness cockeye, Schneider and Meek   168,063 W  Harrow, J. W. Price   167,932 W  Harrow and cultivator, J. W. Dilley   167,838 W  Harrow and cultivator, J. W. Dilley   167,838 W  Harrow and cultivator, J. W. Dilley   167,939 W  Harrow and cultivator, J. C. Deda   167,939 W  Harrow and cultivator, J. C.				St
Fire extinguisher. E. H. Ashcroft (r)	ļ	Fifth wheel, W. A. Parker File-cutting machine feed, J. Garland	167,927 167,833	St
Fire kinaler, C. A. Maynara.   167.385   The Pipe place blower. J. C. Kenneday.   167.905   Thour packer cut-off, A. M. Hobbs   168,020   Thu and jelly press, Cook and Bostwick   167.927   The press, Cook and Bostwick   167.928   The press, Cook and Bostwick   167.935   The press, Cook and Bostwick   167.937   The press, Cook and Bostwick   167.930   The press,	ļ	Fire escape, F. M. Harman	168,015	Ts
Flour packer cut-off, A. M. Hobbs   168,000   Truit and jelly press, Cook and Boatwick   167,927   Truel, artificial, E. F. Loiseau   167,913   Truel, mixing artificial, E. F. Loiseau   167,913   Trurnace for brick kilns, W. S. Colwell   167,926   Tournace for brick kilns, W. S. Colwell   167,926   Tournace for brick kilns, W. S. Colwell   167,926   Tournace for brick kilns, W. S. Colwell   167,935   Tournace for brick kilns, W. S. Colwell   167,935   Tournace for ordinance, L. W. Broadwell   168,000   Tournace for ordinance, L. W. Broadwell   167,931   Tournace for ordinance for	İ	Fire kindler, C. A. Maynard	167.849	Т
Fuel, mixing artificial, E. F. Loiseau. 167,314 The Fuel, mixing artificial, E. F. Loiseau. 167,325 Thurnace for brick kilns, W. S. Colwell. 167,826 Thurnace for brick kilns, W. S. Colwell. 167,826 Thurnace for brick kilns, W. S. Colwell. 167,826 Thurnace for brick kilns, W. S. Colwell. 167,826 Thurnace for brick kilns, W. S. Colwell. 167,826 Thurnace for oranance, L. W. Broadwell. 167,831 Thurnace for oranance, L. W. Broadwell. 167,831 Thurnace for oranance, L. W. Broadwell. 167,831 Thurnace for the formal for seasons for the formal for seasons for the formal for seasons for the formal for seasons for the formal for seasons for the formal for seasons for the formal for seasons for the formal for seasons for formal for seasons for formal for seasons for for seasons for formal for seasons for formal for seasons for for for formal for seasons for formal for formal for formal for for for formal for formal for formal for formal for formal for formal for formal for formal for formal for formal for formal for for for formal for formal for formal for formal for formal for for for formal for formal for formal for formal for formal for formal for formal for formal for formal for formal for formal for for for formal for formal for formal for formal for formal for for formal for for formal for formal for formal for formal for formal for formal for formal for formal for formal for formal for formal for formal for formal for formal for formal for formal for formal for for for for for for for for for for	ļ	Flour packer cut-off, A. M. Hobbs	168,020	Tì
Furnace for brick kilns, W. S. Colwell.   167,285   T. Garments, machine for cutting out, J. L. Fry.   168,011   Gas apparatus, J. H. Pugh.   168,006   T. Gas check for ordanace, L. W. Broadwell.   167,981   Gas mains, drain for, J. Nader.   167,841   Gas making, T. W. Lion.   167,841   Gas making, T. W. Lion.   167,841   Gas making, T. W. Lion.   167,841   Gate automatic, L. E. Thorson.   167,854   Gate hinge and closing rod, W. H. McCormick.   168,000   Generator furnace grate, A. Winton.   168,075   Governor, J. Felber.   167,885   Grain steaming, J. C. Hunt.   167,887   Grain steaming, J. C. Hunt.   167,887   Grist alarm, G. H. Eastman (r)   6.655   Harness, check guard for, F. Howard.   167,386   Harrow, J. W. Price.   167,382   Harrow and cultivator, J. W. Dilley.   167,383   Harrow and cultivator, J. W. Dilley.   167,383   Hattorway, C. M. Dalsen.   167,395   Hattorhay, C. M. Dalsen.   167,395   Hattorhay, C. M. Dalsen.   167,395   Hattorhay, G. M. Dalsen.   167,395   Heater, M. W. Baily.   167,385   Helettrimming machine, Silver and Swords.   167,395   Horse boat, J. B. Hall.   167,395   Horseshoe blanks, etc., swagfing, R. Hale et al.   167,395   Horse boat, J. B. Hall.   167,395   Horse power, N. Potter.   167,390   Horse hoe machine, S. Espach   168,068   Horseshoe machine, S. Espach   168,069   Jack, Hifting, G. W. Edwards.   168,069   Jack, Hifting, G. W. Edwards.   168,069   Jack, Horsenson   167,391   Lump bracket, Willson and Vassle.   167,391   Lump bracket, Willson and Vassle.   167,392   Horsenson   167,391   Polick, can J. A. Willson   168,069   Perging machine, J. C. Farmer.   167,393   Nut lock, C. Holton.   168,061   Perging machine, B. E. Sperry   167,881				TI
Garments, machine for cutting out, J. L. Fry 168,011 T. Gas apparatus, F. H. Eichbaum 168,006 T. Gas apparatus, J. H. Pugh. 168,491 T. Gas check for ordnance, L. W. Broadwell. 167,931 T. Gas mains, Arain for, J. Nader. 167,841 V. Gas mains, Arain for, J. Nader. 167,841 V. Gas making, T. W. Lion 167,844 V. Gas making, T. W. Lion 167,844 V. Gas making, T. S. C. Lowe. 167,841 V. Gas making, T. S. C. Lowe. 167,842 V. Gate automatic, L. E. Thorson. 167,957 V. Gate hinge and closing rod, W. H. McCormick. 168,075 W. Generator, furnace grate, A. Winton. 168,075 W. Governor, J. Felber. 167,885 W. Grain, steaming, J. C. Hunt. 167,897 W. Grain binder, C. E. Donnellan. 167,997 W. Grist alarm, G. H. Eastman (r) 6,655 W. Harness cockeye, Schnelder and Meek. 168,054 W. Harnew, I. N. Harbaugh. 167,996 W. Harrow, I. W. Price. 167,932 W. Harrow and cultivator, J. W. Dilley. 167,333 W. Harrow and cultivator, J. W. Dilley. 167,333 W. Hartow and cultivator, J. W. Dilley. 167,393 W. Hatanf ur box, J. C. Budd. 167,995 W. Hattohyay, C. M. Dalsen. 167,993 W. Hay, gathering and elevating, A. J. Park. 167,995 W. Heater, M. W. Baily. 167,888 W. Horse boat, J. B. Hall. 167,995 W. Horse boat, J. B. Hall. 167,995 W. Horse boat, J. B. Hall. 167,995 W. Horse boat, J. B. Hall. 167,895 W. Horseshoe blanks, etc., swaging, R. Hale et al. 167,390 W. Horse boat, J. B. Hall. 167,895 W. Horseshoe machine, S. Espach. 168,008 W. Horseshoe banks, etc., swaging, R. Hale et al. 167,391 W. Ironing board, J. Watson. 168,063 J. Ironing board, J. Watson. 168,065 J. Joint, combination shell, O. C. Little. 167,391 W. Ironing apparatus, G. W. Cottlingham (r) 6,654 S. Ironing board, J. Watson. 168,065 J. Joint, combination shell, O. C. Little. 167,393 W. Ironing apparatus, G. W. Cottlingham (r) 6,654 S. Ironing apparat	١			Tı Tı
Gas apparatus, J. H. Pugh   168, 491   167, 638 check for ordnance, L. W. Broadwell.   167, 881   163   163   163   163   163   164   167, 881   163   164   167, 881   163   164   167, 881   163   164   167, 881   163   164   164   165   164   167, 881   164   165   164   165		Garments, machine for cutting out, J. L. Fry	168,011	Tı
Gas making, T. W. Llon   167,854   V. Gas making, T. S. C. Lowe   167,844   V. Gas making, T. S. C. Lowe   167,844   V. Gate hings and closing rod, W. H. McCormick   168,075   Gate hings and closing rod, W. H. McCormick   168,075   Governor, J. Felber   167,855   Governor, J. Felber   167,857   Governor, J. Felber   167,857   Garin, steaming, J. C. Hunt   167,857   Grain binder, C. E. Donnellan   167,957   Grist alarm, G. H. Eastman (r)   6.6.55   Harness, check guard for, F. Howard   167,856   Harness, cockeye, Schneider and Meek   168,054   Harrow, J. N. Harbaugh   167,996   Harrow, J. W. Price   167,932   Harrow and cultivator, J. W. Dilley   167,859   Hat pushing machine, Silver and Swords   167,945   Hatchway, C. M. Dalsen   167,955   Heater, M. W. Baily   167,866   Heater, M. W. Baily   167,866   Horse boat, J. B. Hall   167,857   Horse boat, J. B. Hall   167,857   Horse bower, N. Potter   167,930   Horseshoe, J. T. Walker   168,068   Horseshoe blanks, etc., swaging, R. Hale et al. 167,850   Horse bower, N. Potter   167,930   Horseshoe machine, S. Espach   168,068   Horseshoe machine, S. Espach   167,851   Ironing board, J. Watson   168,069   Jack, lifting, G. W. Edwards   167,852   Ironing board, J. Watson   168,069   Jack, lifting, G. W. Edwards   167,869   Lamp, diver's, C. Marschalk   168,035   Lamp trip cup, A. Bechet   167,869   Lach, lifter, E. Stockwell   168,062   Lock, timp, E. Blackman   167,970   Nut lock, Shoemaker and Jones   167,991   Paper ruling machine, J. Stewart   167,983   Piente		Gas apparatus, J. H. Pugh.	168,049	Τι
Gas making, T. S. C. Lowe		Gas mains, drain for, J. Nader	167,854	T
Gate hinge and closing rod, W. H. McCormick. 188,040   Venerator, furnace grate, A. Winton. 163,075   Wenerator, furnace grate, A. Winton. 163,075   Wovernor, J. Felber. 167,885   Grain, steaming, J. C. Hunt. 167,887   Winterface of the control o		Gas making, T. S. C. Lowe	167,847	V
Generator, furnace grate, A. Winton		Gate, automatic, L. E. Thorson	167,954	V
Grain, steaming, J. C. Hunt. 167,837   W. Grain binder, C. E. Donnellan. 167,997   Grist alarm, G. H. Eastman (r) 6,655   Harness. check guard for, F. Howard. 167,836   Harness. check guard for, F. Howard. 167,836   Harness cockeye, Schnelder and Meek. 168,054   Harrow, I. N. Harbaugh. 167,996   Harrow, J. W. Price. 167,332   Harrow and cultivator, J. W. Dilley. 167,873   Harrow and cultivator, J. W. Dilley. 167,873   Hat and fur box, J. C. Budd. 167,985   Hat brushing machine. Silver and Swords. 167,945   Hat brushing machine. Silver and Swords. 167,945   Hat cheway, C. M. Dalsen. 167,995   Hay, gathering and elevating, A. J. Park. 167,936   Heater, M. W. Baily. 167,868   Heel trimming machine, J. H. Bussell. 167,874   Hinge, combination spring, G. Z. House. 167,900   Horse boat, J. B. Hall. 167,895   Horseshoe blanks, etc., swaging, R. Hale et al. 167,895   Horseshoe blanks, etc., swaging, R. Hale et al. 167,990   Horseshoe machine, S. Espach. 168,068   Hose reel, J. A. Miller. 167,875   Hub band, D. W. Baird. 167,970   Ink. copying, A. J. Dexter. 167,875   Ironing apparatus, G. W. Cottingham (r). 6,655   Ironing board, J. Watson. 168,069   Jack, lifting, G. W. Edwards. 167,864   Lamp, E. Blackman. 167,871   Lamp bracket, Willson and Vassie. 167,864   Lamp, diver's, C. Marschalk. 168,035   Latch side rest, G. F. Ballou. 167,864   Latch, reversible, P. Mathes. 168,036   Latch, reversible, P. Mathes. 168,036   Latch, reversible, P. Mathes. 168,037   Molder's flask, H. H. Garrett 167,990   Molder's flask, H. H. Garrett 167,995   Molder's fla		Generator.furnace grate, A. Winton	168,075	w
Grist alarm, G. H. Eastman (r)		Grain, steaming, J. C. Hunt	167,837	w
Harness cockeye, Schneider and Meek	ĺ	Grist alarm, G. H. Eastman (r)	6,655	w
Harrow, J. W. Price.   167,332   W. Harrow and cultivator, J. W. Dilley   167,873   W. Hat and fur box, J. C. Budd.   167,935   W. Hat brushing machine, Silver and Swords   167,945   Hat brushing machine, Silver and Swords   167,945   Hatchway, C. M. Dalsen.   167,938   Hay, gathering and elevating, A. J. Park   167,938   Heater, M. W. Baily   167,868   Heel trimming machine, J. H. Bussell.   167,874   Hinge, combination spring, G. Z. House   167,800   Horse boat, J. B. Hall.   167,835   Horse power, N. Potter   167,930   Horseshoe, J. T. Walker   167,830   Horseshoe blanks, etc., swaging, R. Hale et al.   167,836   Horseshoe blanks, etc., swaging, R. Hale et al.   167,836   Horseshoe blanks, etc., swaging, R. Hale et al.   167,878   Inching apparatus, G. W. Cottingham (r)   6,654   R. Inching board, J. Watson   168,069   Jack, lifting, G. W. Edwards   168,005   Joint, combination shell, O. C. Little   167,845   Lamp, E. Blackman   167,871   Lamp bracket, Willson and Vassie   167,864   Lamp diver's, C. Marschalk   168,035   Latch, reversible, P. Mathes   168,036   Latch, reversible, P. Mathes   168,036   Latch, start, G. F. Ballou   167,974   Lock, combination, A. E. Peters   167,939   Lock, seal, A. F. Whiting   168,070   Lock, time, E. Stockwell   168,062   Locomotive exhaust pipe, J. C. Farmer   167,883   Mantel for fire places, D. K. Innes   168,073   Molder's flask, H. H. Garrett   167,989   Motor, mechanical, J. W. H. Doubler   167,999   Molder's flask, H. H. Garrett				w
Harrow and cultivator, J. W. Dilley		Harrow, J. W. Price	167,996 167,932	. W
Hat brushing machine, Silver and Swords   167,945   Hatchway, C. M. Dalsen.   167,945   Hatchway, C. M. Dalsen.   167,936   Hay, gathering and elevating, A. J. Park   167,926   Heater, M. W. Baily.   167,868   Heel trimming machine, J. H. Bussell.   167,874   Hinge, combination spring, G. Z. House.   167,809   Horse boat, J. B. Hall.   167,835   Horse power, N. Potter.   167,930   Horseshoe, J. T. Walker.   168,068   Horseshoe blanks, etc., swaging, R. Hale et al.   167,836   Horseshoe blanks, etc., swaging, R. Hale et al.   167,836   Horseshoe machine, S. Espach   168,068   Hose reel, J. A. Miller   167,851   Hub band, D. W. Baird.   167,970   Ink. copying, A. J. Dexter.   167,878   Ironing apparatus, G. W. Cottingham (r)   6,654   Ironing board, J. Watson.   168,005   Joint, combination shell, O. C. Little.   167,845   Ironing board, J. Watson.   168,005   Joint, combination shell, O. C. Little.   167,845   Lamp, E. Blackman.   167,871   Idamp bracket, Willson and Vassie.   167,861   Idamp arrip cup, A. Bechet.   167,869   Idamp arrip cup, A. Bechet.   167,869   Idamp arrip cup, A. Bechet.   167,930   Idamp arrip cup, A. Wilson.   168,032   Idamp arrip cup, A. Wilson.   168,032   Idamp arrip cup, A. Wilson.   168,035   Idamp arrip cup, A. Wilson.   168,036   Idamp arrip arrive ar		Harrow and cultivator, J. W. Dilley	167,879	W
Hay, gathering and elevating, A. J. Park.   167,368   Meater, M. W. Baily.   167,868   Melei trimming machine, J. H. Bussell.   167,874   Hinge, combination spring, G. Z. House   167,890   Morse boat, J. B. Hall.   167,895   Horse power, N. Potter   167,390   Horse boat, J. B. Hall.   167,895   Horse power, N. Potter   167,390   Horseshoe blanks, etc., swaging, R. Hale et al.   167,895   Horseshoe machine, S. Espach   168,008   Hose reel, J. A. Miller   167,891   Hub band, D. W. Baird   167,370   Ink. copying, A. J. Dexter   167,378   Ironing apparatus, G. W. Cottingham (r)   6,654   Ironing board, J. Watson   168,009   Jack, lifting, G. W. Edwards   168,005   Joint, combination shell, O. C. Little   167,861   Lamp, E. Blackman   167,861   Lamp bracket, Willson and Vassie   167,864   Lamp, diver's, C. Marschalk   168,038   Latch side rest, G. F. Ballou   167,374   Lock, combination, A. E. Peters   167,929   Lock, seal, A. F. Whiting   168,070   Lock, time, E. Stockwell   168,062   Locomotive exhaust pipe, J. C. Farmer   167,383   Mantel for fire places, D. K. Innes   168,073   Mill, flour, T. C. Delaplane   167,939   Molter's flask, H. H. Garrett   167,999   Molter's flask, H. H. Garre		Hat brushing machine, Silver and Swords	167,945	w
Heel trimming machine, J. H. Bussell		Hay, gathering and elevating, A. J. Park	167,926	w
Hinge, combination spring, G. Z. House		Heater, M. W. Baily  Heel trimming machine, J. H. Bussell	167,868 167,874	W W
Horse power, N. Potter		Hinge, combination spring, G. Z. House	167,900	Y
Horseshoe blanks, etc., swaging, R. Hale et al.   167,894   Horseshoe machine, S. Espach   168,008   8, Hose reel, J. A. Miller   167,851   167,851   167,970   Ink. copying, A. J. Dexter   167,878   170,101   167,970   Ink. copying, A. J. Dexter   167,878   170,101   168,069   Jack, lifting, G. W. Edwards   168,065   Joint, combination shell, O. C. Little   167,845   Lamp, E. Blackman   167,871   Lamp bracket, Willson and Vassie   167,864   Lamp, diver's, C. Marschalk   168,033   Latch slide rest, G. F. Ballou   167,974   Lock, combination, A. E. Peters   167,939   Lock, seal, A. F. Whiting   168,062   Lock, combination, A. E. Peters   167,939   Lock, seal, A. F. Whiting   168,062   Lock, time, E. Stockwell   168,062   Locomotive exhaust pipe, J. C. Farmer   167,883   Mantel for fire places. D. K. Innes   168,062   Lock, preserving, J. A. Wilson   168,073   Mill, flour. T. C. Delaplane   167,995   Moder's flask, H. H. Garrett   167,999   Nail, A. Marotzki   168,037   Nut lock, C. Holton   168,031   Nut lock, Shoemaker and Jones   167,944   Toky of the combination, J. Stewart   167,990   Nail, A. Marotzki   168,037   Nut lock, J. C. Wright   167,946   Paper ruling machine, J. Stewart   167,930   Piston, steam, O. M. Stillman   167,946   Piston, steam, O. M. Stillman		Horse power, N. Potter	167,930	
Hose reel, J. A. Miller		Horseshoe blanks, etc., swaging, R. Hale et al	167,894	8,
Hub band, D. W. Baird.   167,970   8   167,970   8   1   1   1   1   1   1   1   1   1				8,
Ironing apparatus, G. W. Cottingham (r)				8,
Jack, lifting, G. W. Edwards		Ironing apparatus, G. W. Cottingham (r)		8,
Lamp, E. Blackman		Jack, lifting, G. W. Edwards	168,005	1 -
Lamp, diver's, C. Marschalk. 168,038   Lamp drip cup, A. Bechet. 167,869   Latch, reversible, P. Mathes. 168,036   Latch, reversible, P. Mathes. 168,036   Latch, reversible, P. Mathes. 168,036   Latch, reversible, P. Mathes. 167,974   Lock, combination, A. E. Peters. 167,929   Lock, seal, A. F. Whiting. 168,070   Lock, time, E. Stockwell 168,062   Locomotive exhaust pipe, J. C. Farmer. 167,883   Mantel for fire places. D. K. Innes. 168,025   Meat, preserving, J. A. Wilson. 168,025   Meat, preserving, J. A. Wilson. 168,025   Molder's flask, H. H. Garrett 167,995   Molder's flask, H. H. Garrett 167,990   Motor, mechanical, J. W. H. Doubler. 167,997   Nail, A. Marotzki. 168,037   Nut lock, C. Holton. 168,021   Nut lock, J. C. Wright. 167,967   Paper ruling machine, J. Stewart. 167,859   Pegging machine, screw, A. C. McKnight. 168,042   Pencils, making, R. Lanstrom. 168,030   Piston, steam, O. M. Stillman. 167,860   Pitcher, molasses, L. Wagner 167,945   Plane guide. W. S. Shipe. 167,943   Planer cutter sharpener, G. Manvel. 167,936   Planer cutter sharpener, G. Manvel. 167,930   Planer cutter sharpener, G. Manvel. 167,936   Plow, wheel, J. Flow. 167,857   Pocket book, S. Lyon. 167,931   Polishing machine, B. E. Sperry. 167,840   Press, cloth, W. Hebdon. 168,017   Press, cloth, W. Hebdon. 168,017   Press, cloth, W. Hebdon. 168,017   Printing press delivery, J. W. Kellberg. 167,840   Pump, T. Dowling. 167,841   Pump, T. Dowling. 167,841   Pump, M. J. Johnson (r). 6,649   Pump, T. Dowling. 167,841   Pump, T. Dowling. 167,841   Pump, M. J. Johnson (r). 6,649   Pump, M. J. Johnson (r). 6,669   Pump		Lamp, E. Blackman	167,871	o
Lamparip cup, A. Bechet. 167,869   Latch, reversible, P. Mathes. 168,036   Latch, reversible, P. Mathes. 167,939   Lock, combination, A. E. Peters. 167,939   Lock, seal, A. F. Whiting. 168,070   Lock, time, E. Stockwell 168,062   Locomotive exhaust pipe, J. C. Farmer. 167,883   Mantel for fire places. D. K. Innes. 168,025   Meat, preserving, J. A. Wilson. 168,073   Mill, flour. T. C. Delaplane. 167,995   Molder's flask, H. H. Garrett. 167,990   Motor, mechanical, J. W. H. Doubler. 167,993   Nail, A. Marotzki. 168,037   Nut lock, C. Holton. 168,021   Nut lock, C. Holton. 168,021   Nut lock, Shoemaker and Jones. 167,944   Nut lock, J. C. Wright. 167,967   Paper ruling machine, J. Stewart. 167,957   Paper ruling machine, J. Stewart. 167,959   Pegging machine, screw, A. C. McKnight. 168,030   Piston, steam, O. M. Stillman. 167,960   Pitcher, molasses, L. Wagner. 167,948   Pitcher, molasses, L. Wagner. 167,948   Planer cutter sharpener, G. Manvel. 167,930   Planer cutter sharpener, G. Manvel. 167,930   Planer cutter sharpener, G. Manvel. 167,931   Pocket book, S. Lyon. 167,931   Pocket book, S. Lyon. 167,858   Pocket book, S. Lyon. 167,858   Press, cloth, W. Hebdon. 168,017   Press, cloth, W. Hebdon. 168,017   Printing press delivery, J. W. Kellberg. 167,840   Pump, T. Dowling. 167,841   Pump, M. J. Johnson (r). 6,649   Pump, M. J. Johnson (r). 6,669				0
Latch slide rest, G. F. Ballou	i	Lampdrip cup, A. Bechet	. 167,869	9
Lock, seal, A. F. Whiting		Latch slide rest, G. F. Ballou	167,974	U
Locomotive exhaust pipe, J. C. Farmer.   167,883   Mantel for fire piaces. D. K. Innes.   168,025   Meat, preserving, J. A. Wilson.   168,073   Mill, flour. T. C. Delaplane.   167,995   Molder's flask, H. H. Garrett   167,990   Motor, mechanical, J. W. H. Doubler.   167,999   Nail, A. Marotzki.   168,037   Nut lock, C. Holton.   168,021   Nut lock, Shoemaker and Jones.   167,944   Nut lock, J. C. Wright.   167,967   Paper ruling machine, J. Stewart.   167,967   Paper ruling machine, J. Stewart.   167,859   Pegging machine, screw, A. C. McKnight.   168,030   Piston, steam, O. M. Stillman.   167,860   Pitcher, molasses, L. Wagner   167,862   Pitman oscillating joint, A. K. Smith.   167,943   Pianer cutter sharpener, G. Manvel.   167,930   Planer cutter sharpener, G. Manvel.   167,930   Planer cutter sharpener, G. Manvel.   167,930   Plow, wheel, J. Flow.   167,857   Plow, wheel, J. Flow.   167,858   Pocket book, S. Lyon.   167,951   Pocket book fastener, L. Prahar.   167,931   Polishing machine, B. E. Sperry.   167,858   Press, cloth, W. Hebdon.   168,017   Printing præss delivery, J. W. Kellberg.   167,840   Pump, T. Dowling.   167,841   Pump, T. Dowling.   167,841   Pump, M. J. Johnson (r).   66,649   Pump, M. J. Johnson (r).   66,6	1	Lock, seal, A. F. Whiting	. 168,070	0
Meat, preserving, J. A. Wilson				
Mill, flour. T. C. Delaplane.   167,995     Molder's flask, H. H. Garrett   167,990     Motor, mechanical, J. W. H. Doubler.   167,990     Natl, A. Marotzki.   168,037     Nut lock, C. Holton.   168,021     Nut lock, Shoemaker and Jones.   167,944     Nut lock, J. C. Wright.   167,945     Paper ruling machine, J. Stewart.   167,957     Pegging machine, screw, A. C. McKnight.   168,032     Pencils, making, R. Lanstrom.   168,030     Piston, steam, O. M. Stillman.   167,860     Pitcher, molasses, L. Wagner   167,862     Pitman oscillating joint, A. K. Smith.   167,948     Planer cutter sharpener, G. Manvel   167,930     Planter. corn, E. Morgan.   168,046     Plow, wheel, J. Flow.   167,837     Pocket book, S. Lyon.   167,916     Pocket book fastener, L. Prahar.   167,931     Polishing machine, B. E. Sperry.   167,858     Press, cloth, W. Hebdon.   168,017     Printing præss delivery, J. W. Kellberg. 187,840   167,841     Pump, T. Dowling.   167,881     Pump, M. J. Johnson (r).   6,649     Pump, M. J. Johnson (r).   6,649     Pump, M. J. Johnson (r).   6,649	3			
Motor, mechanical, J. W. H. Doubler.   167,999   Nail, A. Marotzki   168,037   Nut lock, C. Holton.   168,021   Nut lock, Shoemaker and Jones.   167,944   Nut lock, Shoemaker and Jones.   167,944   Nut lock, J. C. Wright.   167,957   Paper ruling machine, J. Stewart.   167,859   Pegging machine, screw, A. C. McKnight.   168,032   Pencils, making, R. Lanstrom.   168,030   Piston, steam, O. M. Stillman.   167,860   Pitcher, molasses, L. Wagner   167,862   Pitman oscillating joint, A. K. Smith.   167,943   Piane guide. W. S. Shipe.   167,943   Piane rutter sharpener, G. Manvel.   167,930   Planer cutter sharpener, G. Manvel.   167,887   Plow, wheel, J. Flow.   167,857   Pocket book, S. Lyon.   167,857   Pocket book fastener, L. Prahar.   167,351   Poilshing machine, B. E. Sperry.   167,858   Press, cloth, W. Hebdon.   168,017   Printing press delivery, J. W. Kellberg.   167,841   Pump, T. Dowling.   167,881   Pump, M. J. Johnson (r).   6,649	2	Mill, flour. T. C. Delaplane	. 167,995	1
Nut lock, C. Holton.   168,021	ļ	Motor, mechanical, J. W. H. Doubler	. 167,999	ין י
Nut lock, J. C. Wright	3	Nut lock, C. Holton	. 168,021	.
Paper ruling machine, J. Stewart. 167,859   Pegging machine, screw, A. C. McKnight. 168,042   Pencils, making, R. Lanstrom. 168,030   Piston, steam, O. M. Stillman. 167,860   Pitcher, molasses, L. Wagner 167,862   Pitman oscillating joint, A. K. Smith. 167,948   Pianer cutter sharpener, G. Manvel 167,930   Pianter corn, E. Morgan. 168,046   Piow, wheel, J. Flow. 167,887   Pocket book, S. Lyon. 167,867   Pocket book fastener, L. Prahar. 167,331   Polishing machine, B. E. Sperry. 167,858   Press, cloth, W. Hebdon. 168,017   Press, cloth, W. Hebdon. 168,017   Printing press delivery, J. W. Kellberg. 187,840, 167,841   Pump, T. Dowling. 167,881   Pump, M. J. Johnson (r). 6,649   Pocket book, J. Johnson (r). 6,649   Pomp, M. J. Johnson (r). 6,649   Pump, M. J. Johnson (r). 6,649   Pocket book, J. Johnson (r). 6,649   Pump, M. J. Johnson (r). 6,649	l			
Pencils, making, R. Lanstrom.   168,030   5   Piston, steam, O. M. Stillman   167,860   Piston, steam, O. M. Stillman   167,860   7   Pitcher, molasses, L. Wagner   167,862   7   Pitman oscillating joint, A. K. Smith   167,948   7   Piane guide. W. S. Shipe   167,943   7   Pianer cutter sharpener, G. Manvel   167,920   Pianer cutter sharpener, G. Manvel   167,867   Piow, wheel, J. Flow   167,887   Piow, wheel, J. Flow   167,887   Pocket book, S. Lyon   167,916   Pocket book fastener, L. Prahar   167,931   Polishing machine, B. E. Sperry   167,858   Press, cloth, W. Hebdon   168,017   Printing press delivery, J. W. Kellberg   167,840   167,841   Pump, T. Dowling   167,881   Pump, M. J. Johnson (r)   6,649   Pump, M. J. Johnson (r)   6,649   Pitcher, molasses, L. Wagner   168,017   Pump, M. J. Johnson (r)   6,649   Pitcher, molasses, L. Wagner   167,881   Pump, M. J. Johnson (r)   6,649   Pitcher, molasses, L. Wagner   167,840   167,841   Pump, M. J. Johnson (r)   6,649   Pitcher, molasses, L. Wagner   167,851   Pump, M. J. Johnson (r)   6,649   Pitcher, molasses, L. Wagner   167,851   Pump, M. J. Johnson (r)   6,649   Pitcher, molasses, L. Wagner   167,851   Pump, M. J. Johnson (r)   6,649   Pitcher, molasses, L. Wagner   167,851   Pitcher, molasses, L. Wagner   167,852   Pitcher, molas	9	Paper ruling machine, J. Stewart	. 167,859	)   5
Fitcher, molasses, L. Wagner   167.862     Pitman oscillating joint, A. K. Smith.   167,948     Planer guide. W. S. Shipe.   167,943     Planer cutter sharpener, G. Manvel.   167,920     Planter. corn, E. Morgan.   168,046     Plow, wheel, J. Flow.   167,857     Pocket book, S. Lyon.   167,916     Pocket book fastener, L. Prahar.   167,931     Polishing machine, B. E. Sperry.   167,858     Press, cloth, W. Hebdon   168,017     Printing press delivery, J. W. Kellberg.   167,840     Pump, T. Dowling.   167,881     Pump, M. J. Johnson (r).   6,649	5	Pencils, making, R. Lanstrom	. 168,030	)   5
Plane guide. W. S. Shipe	6	Pitcher, molasses, L. Wagner	. 167.862	3   5
Planer cutter sharpener, G. Manvel	7	Plane guide. W. S. Shipe	. 167,943	3   5
Plow, wheel, J. Flow	0	Planer cutter sharpener, G. Manvel		
Pocket book fastener, L. Prahar.   167,931   1 Polishing machine, B. E. Sperry.   167,858   1 Press, cloth, W. Hebdon   168,017   2 Printing press delivery, J. W. Kellberg.   167,840   167,841   5   2   2   2   2   3   3   4   5   5   5   5   5   5   5   5   5	7	Plow, wheel, J. Flow	. 167,887	7
Press, cloth, W. Hebdon   168,017	•	Pocket book fastener, L. Prahar	. 167,931	ч
3   Pump, T. Dowling	1	Press, cloth. W. Hebdon	. 168.017	7 I
8 Pump, M. J. Johnson (r)	2	Printing press delivery, J. W. Kellberg 167,840 Pump, T. Dowling	. 167,88	1 ]
	8	Pump, M. J. Johnson (r)	6,64	9   5
	•	•	,	

Can alconing E Wheeler (v)	Pump huckets andless chain I S Manly	167 010
Car, sleeping, E. Wheeler (r) 6,651   Car starter, L. C. Parkes 167,928	Pump buckets, endless chain, J. S. Manly	
Car, stock, J. R. McPherson	Punch, hydraulic, J. B. Barnes	
Car, stock, Steventon & McGrath	Railroad crossing, C. C. Shelby	
Cars, drawbar for street, F. F. Adams 167,968	Railroad crossings, gate for, S. Keller	
Carbureter, air and gas, Porter & Grimes 168,048	Railroad signals, electric, W. H. Spang 168,058,	
Carpetstretcher, B. Darragh	Rammer, steam road, S. Johnson	
Carriage seat irons, bending, Emerson et al 168,007	Reefing and furling sails, P. B. Legraw 1	
Carriage spring, J. Cunningham	Refrigerators, ice floor for, H. Braunlich	
Carriage spring, H. M. Curtis	Register, F. J., & W. H. Hoyt	
Carriage spring, J. Fredenburgh	Registering machine, etc., F. W. Brooks	
Cartridge shells, necking, Salisbury & Wells 167,940	Rein holder, B. F. Brown	
Cement, marble, A. Boag 167,979	Rein holder, Gilmore & Spencer	
Centering device, M. T. Greenwood 167,834	Rolling metal tubes, C. L. Johnson	
Centrifugal machine, C. C. Webber 167,962	Rolling mill feed, S. Vanstone	
Chandelier, F. McLewee	Roof, composite. R. Lee	
Chandeliers, clutch for, E. C. Bruen 167,984	Roundabout, L. Schaeffer	
Chuck, planer, H. Thomas 163,064	Row lock, J. S. Dougherty	
Church pew, I. Lancaster	Sad iron, R. H. Robbins	
Churn, E. Groat. 167,893	Sash fastener, E. B. Beach	
Churn, E. Husher	Sash fastener, E. W. Brettell	
Churn, W. P. Mangum. 167,918	Sash fastener, R. L. Pruyn	
	Sash holder, J. Stauffer	
Clock case W. N. Wooden		
Clock case, W. N. Weeden	Saw, hand, H. Disston Saw handles, crosscut, J. L. Edgar	
Cloth press, W. Hebdon		
Coal-agglomerating press, A. G. Lasserre 168 031	Saws, inserting diamonds in, J. E. Emerson	
Coal for ourser Brooks & Wright 167,857	Sawing machine, scroll, I. P. Hicks	
Coal tar ourner, Brooke & Wright	Scre vs. cutting wood, Chamberlin & Cushing  Settee, J. P. Sayles	
· ·		
Cock, shower and bath, H. J. Bailey 167,817	Sewing machine, shuttle, H. L. Walker	
Cooking apparatus steam G. H. Ferris 167, 220	Sheet iron blank, G. E. Taylor	
Cooking apparatus, steam, G. H. Ferris 167,830	Shoe, club foot, W. Autenrieth 1	
Corset, D. H. Horne	Shoe edge trimming, Addy & Abbott	
Corset fastening, F. E. Vandercook	Shoe-pegging machine, J. H. Oliver	
Countersink, T. P. Farmer	Shutter fastener, R. L. Pruyn	
Cradle rocking device, L. L. King	Shuttle fastening, C. Smith	
Cryolite, decomposing, H. Burgess	Signal, fog, W. S. Martin	
Cultivator, Winfield & Flynn	Sink, L. Robinson	
Dam, adjustable, W. Smith	Slate polisher, Coffin & Klotz 1	
Dental engines, fan for, Hopkins & Beidler 168,023	Sleigb, G. McConnell	
Dental forceps, L. J. P. E. Gailard 168,012	Soap-cutting machine, J. C. Ralston	
Derrick, W. C. Wetherill	Soldering iron, J. Agular	
Doll, walking, A. E. Hotchkiss 167,899	Soles, buffing. J. B. Johnson167,904, 1	
Door spring, O. F. Comfort	Spindle steps, securing, A. S. Hopkins	
Drill, rock, G. Frisbee	Spindles, oiling, Buttrick & Flanders	
Drills, ratchet brace, H. C. Hart	Spinning machine whirl, Wilson & Hall	
Eaves trough hanger, W. H. & H. W. Trissler 167,955	Stamp, etc., revenue, Casilear & McIntire	
Electric machine. magneto-, O. Heikel 168,018	Stamps, composition for, J. Scott	
Elevator, grain, E. Körting 168,029	Stamps, canceling, F. C. Hamilton	
Engine, rotary, W. Lyon 168,035	Stove, J. Duffy 1	
Engines, dash pot for, r. Steele 167,950	Stove, J. A. Moore	
Faucet, basin, J. Donning	Stove door, turn button, W. Morand	167,853
Fancet, vent, R. Brenner 167,821	Stove leg, I. A. Lovejoy	167,915
Fellies and tires. clipfor, R. Ray 167,938	Stove, magazine cooking, Perry et al 1	168,047
Fence, farm, J. E. Winters 167,966	Sucker rod socket, P. E. Jenks	167,903
Fifth wheel, W. A. Parker 167,927	Suspenders, A. R. Warren	167.961
File-cutting machine feed, J. Garland 167,833	Table, ironing, J. W. Field	
Fire escape, F. M. Harman	Table, paper hanger's, J. Orgill	167,924
Fire extinguisher. E. H. Ashcroft (r) 6,653	Tailor's measure, F. H. Ullrich 1	167,957
Fire kindler, C. A. Maynard 167.849	Tanning hides and skins, J. Angus	167,866
Fire place blower. J. C. Kenneday 167,906	Telegraph, printing, T. A. Edison	168,004
Flour packer cut-off, A. M. Hobbs 168,020	Thrashing machine feed, A. W. Lockhart 1	167,912
Fruit and jelly press, Cook and Bostwick 167,827	Tire shrinking machine, J. D. Hobbs 1	167,835
Fuel, artificial, E. F. Loiseau	Tire-upsetting machine, J. H. Mertz 1	167,912
Fuel, mixing artificial, E. F. Loiseau 167,913	Trap, fly, J. S. White	168,071
Furnace for brick kilns, W. S. Colwell 167,826	Truss. H. Becker	167,818
Garments, machine for cutting out, J. L. Fry 168,011	Truss, J. N. Bell	167,977
Gas apparatus, F. H. Eichbaum	Tube cleaner, J. Williams	168,072
Gas apparatus, J. H. Pugh	Tubes, rolling metal, C. L. Johnson	168,026
Gas check for ordnance, L. W. Broadwell 167,981	Tweers, making, E. J. Mildren	
Gas mains, drain for, J. Nader 167,854	Type-setting machine, A. Miller	168 044
Gas, making, T. W. Lion		
Gas making, T. S. C. Lowe	Valve, balanced, J. F. Allen	
Gate, automatic, L. E. Thorson 167,954		167,865
	Valve, balanced, J. F. Allen	167,865 168,033
Gate hinge and closing rod, W. H. McCormick 168,040	Valve, balanced, J. F. Allen Vegetable cutter, J. T. Lohr	167,865 168,033 167,892
Gate hinge and closing rod, W. H. McCormick 168,040 Generator.furnace grate, A. Winton 168,075	Valve, balanced, J. F. Allen	167,865 168,033 167,892 167,971
	Valve, balancea, J. F. Allen	167,865 168,033 167,892 167,971 167,843
Generator.furnace grate, A. Winton 168,075	Valve, balanced, J. F. Allen Vegetable cutter, J. T. Lohr Vehicle spring, M. Gluck Vehicle wheel, E. Ball Wagon axle, Lantz & Mitchell	167,865 168,033 167,892 167,971 167,843 167,877
Generator.furnace grate, A. Winton	Valve, balanced, J. F. Allen Vegetable cutter, J. T. Lohr Vehicle spring, M. Gluck Vehicle wheel, E. Ball Wagon axle, Lantz & Mitchell Wagon spring, L. P. Devendorf	167,865 168,033 167,892 167,971 167,843 167,877 167,973
Generator.furnace grate, A. Winton       168,075         Governor, J. Felber       167,885         Grain, steaming, J. C. Hunt       167,837	Valve, balanced, J. F. Allen.  Vegetable cutter, J. T. Lohr.  Vehicle spring, M. Gluck.  Vehicle wheel, E. Ball.  Wagon axle, Lantz & Mitchell  Wagon spring, L. P. Devendorf  Walls, construction of, G. H. Ballentine.	167,865 168,033 167,892 167,971 167,843 167,877 167,973
Generator.furnace grate, A. Winton.       168.075         Governor. J. Felber.       167.885         Grain, steaming, J. C. Hunt.       167.837         Grain binder, C. E. Donnellan.       167.997	Valve, balanced, J. F. Allen. Vegetable cutter, J. T. Lohr. Vehicle spring, M. Gluck. Vehicle wheel, E. Ball. Wagon axle, Lantz & Mitchell Wagon spring, L. P. Devendorf. Walls, construction of, G. H. Ballentine. Wash stand and water closet, R. C. Ball.	167,865 168,033 167,892 167,971 167,843 167,877 167,973 167,972
Generator.furnace grate, A. Winton       168,075         Governor, J. Felber       167,885         Grain, steaming, J. C. Hunt       167,897         Grain binder, C. E. Donnellan       167,997         Grist alarm, G. H. Eastman (r)       6,655	Valve, balanced, J. F. Allen. Vegetable cutter, J. T. Lohr. Vehicle spring, M. Gluck. Vehicle wheel, E. Ball. Wagon axle, Lantz & Mitchell Wagon spring, L. P. Devendorf. Walls, construction of, G. H. Ballentine. Wash stand and water closet, R. C. Ball. Washing machine, T. P. Benton.	167,865 168,033 167,892 167,971 167,843 167,973 167,972 167,978 167,907
Generator. furnace grate, A. Winton.       168.075         Governor. J. Felber.       167.885         Grain, steaming, J. C. Hunt.       167.887         Grain binder, C. E. Donnellan.       167.997         Grist alarm, G. H. Eastman (r)       6.655         Harness, check guard for, F. Howard.       167.836         Harness cockeye, Schneider and Meek.       168.054	Valve, balanced, J. F. Allen. Vegetable cutter, J. T. Lohr. Vehicle spring, M. Gluck. Vehicle wheel, E. Ball. Wagon axle, Lantz & Mitchell Wagon spring, L. P. Devendorf. Walls, construction of, G. H. Ballentine. Wash stand and water closet, R. C. Ball. Washing machine, T. P. Benton. Washing machine, T. B. Kirkwood.	167,865 168,033 167,892 167,971 167,843 167,877 167,973 167,972 167,978 167,907 168,065
Generator. furnace grate, A. Winton.       168,075         Governor, J. Felber.       167,885         Grain, steaming, J. C. Hunt.       167,897         Grain binder, C. E. Donnellan.       167,997         Grist alarm, G. H. Eastman (r)       6,655         Harness, check guard for, F. Howard.       167,896         Harrow, I. N. Harbaugh.       167,996	Valve, balanced, J. F. Allen. Vegetable cutter, J. T. Lohr. Vehicle spring, M. Gluck. Vehicle wheel, E. Ball. Wagon axle, Lantz & Mitchell Wagon spring, L. P. Devendorf. Walls, construction of, G. H. Ballentine. Wash stand and water closet, R. C. Ball. Washing machine, T. P. Benton. Washing machine, T. B. Kirkwood. Watch balance staff, J. J. Thornton.	167,865 168,033 167,892 167,971 167,843 167,973 167,973 167,978 167,978 167,907 168,065 167,872
Generator. furnace grate, A. Winton       168,075         Governor, J. Felber       167,887         Grain, steaming, J. C. Hunt       167,897         Grain binder, C. E. Donnellan       167,997         Grist alarm, G. H. Eastman (r)       6,655         Harness, check guard for, F. Howard       167,896         Harness cockeye, Schneider and Meek       168.054         Harrow, I. N. Harbaugh       167,996         Harrow, J. W. Price       167,932	Valve, balanced, J. F. Allen. Vegetable cutter, J. T. Lohr. Vehicle spring, M. Gluck. Vehicle wheel, E. Ball. Wagon axle, Lantz & Mitchell Wagon spring, L. P. Devendorf. Walls, construction of, G. H. Ballentine. Wash stand and water closet, R. C. Ball. Washing machine, T. P. Benton Washing machine, T. B. Kirkwood. Watch balance staff, J. J. Thornton Watches, escapement for, Bourquin.	167,865 168,033 167,892 167,971 167,843 167,877 167,973 167,978 167,978 167,907 168,065 167,872 167,925
Generator. furnace grate, A. Winton       168,075         Governor, J. Felber       167,885         Grain, steaming, J. C. Hunt       167,897         Grain binder, C. E. Donnellan       167,997         Grist alarm, G. H. Eastman (r)       6,655         Harness, check guard for, F. Howard       167,836         Harness cockeye, Schneider and Meek       168,054         Harrow, I. N. Harbaugh       167,996         Harrow, J. W. Price       167,932         Harrow and cultivator, J. W. Dilley       167,879	Valve, balanced, J. F. Allen. Vegetable cutter, J. T. Lohr. Vehicle spring, M. Gluck. Vehicle wheel, E. Ball. Wagon axle, Lantz & Mitchell Wagon spring, L. P. Devendorf. Walls, construction of, G. H. Ballentine. Wash stand and water closet, R. C. Ball. Washing machine, T. P. Benton. Washing machine, T. B. Kirkwood. Watch balance staff, J. J. Thornton. Watches, escapement for, Bourquin. Watchman's time check, Osborne & Le Grande.	167,865 168,033 167,892 167,971 167,843 167,877 167,973 167,978 167,978 167,978 167,978 167,978 167,978 167,978
Generator. furnace grate, A. Winton.       168,075         Governor. J. Felber.       167,885         Grain, steaming, J. C. Hunt.       167,887         Grain binder, C. E. Donnellan.       167,997         Grist alarm, G. H. Eastman (r)       6,655         Harness, check guard for, F. Howard.       167,836         Harness cockeye, Schnelder and Meek.       168,054         Harrow, I. N. Harbaugh.       167,996         Harrow, J. W. Price.       167,932         Harrow and cultivator, J. W. Dilley.       167,873         Hat and fur box, J. C. Budd.       167.985	Valve, balanced, J. F. Allen. Vegetable cutter, J. T. Lohr. Vehicle spring, M. Gluck. Vehicle wheel, E. Ball. Wagon axle, Lantz & Mitchell Wagon spring, L. P. Devendorf. Walls, construction of, G. H. Ballentine. Wash stand and water closet, R. C. Ball. Washing machine, T. P. Benton. Washing machine, T. B. Kirkwood. Watch balance staff. J. J. Thornton Watches, escapement for, Bourquin. Watchman's time check, Osborne & Le Grande. Water closet valve, P. D. Donnelly.	167,865 168,033 167,892 167,971 167,843 167,873 167,978 167,978 167,978 167,978 167,907 168,065 167,872 167,998 167,998
Generator. furnace grate, A. Winton.       168,075         Governor, J. Felber.       167,885         Grain, steaming, J. C. Hunt.       167,897         Grain binder, C. E. Donnellan.       167,997         Grist alarm, G. H. Eastman (r)       6,655         Harness, check guard for, F. Howard.       167,836         Harness cockeye, Schneider and Meek.       168,054         Harrow, I. N. Harbaugh.       167,996         Harrow, J. W. Price.       167,932         Harrow and cultivator, J. W. Dilley.       167,873         Hat an fur box, J. C. Budd.       167,985         Hat brushing machine, Silver and Swords.       167,945	Valve, balanced, J. F. Allen. Vegetable cutter, J. T. Lohr. Vehicle spring, M. Gluck. Vehicle wheel, E. Ball. Wagon axle, Lantz & Mitchell Wagon spring, L. P. Devendorf. Walls, construction of, G. H. Ballentine. Wash standard water closet, R. C. Ball. Washing machine, T. P. Benton. Washing machine, T. B. Kirkwood. Watch balance staff. J. J. Thornton Watchman's time check, Osborne & Le Grande. Water, indicating velocity of, G. F. Deacon.	167,865 168,033 167,892 167,971 167,843 167,973 167,973 167,975 167,975 167,907 168,065 167,925 167,998 167,994 167,956
Generator. furnace grate, A. Winton	Valve, balanced, J. F. Allen. Vegetable cutter, J. T. Lohr. Vehicle spring, M. Gluck. Vehicle wheel, E. Ball. Wagon axle, Lantz & Mitchell Wagon spring, L. P. Devendorf Walls, construction of, G. H. Ballentine Wash stand and water closet, R. C. Ball. Washing machine, T. P. Benton Washing machine, T. B. Kirkwood Watch balance staff. J. J. Thornton. Watches, escapement for, Bourquin. Watchman's time check, Osborne & Le Grande. Water, indicating velocity of, G. F. Deacon. Water wheel, H. Twitchell. Weather strip, G. P. Bennett.	167,865 168,033 167,892 167,971 167,843 167,977 167,978 167,978 167,907 168,065 167,892 167,998 167,904 167,904 167,904 167,904
Generator. furnace grate, A. Winton.       168,075         Governor. J. Felber.       167,885         Grain, steaming, J. C. Hunt.       167,887         Grain binder, C. E. Donnellan.       167,997         Grist alarm, G. H. Eastman (r)       6,655         Harness, check guard for, F. Howard.       167,836         Harness cockeye, Schnelder and Meek.       168,054         Harrow, I. N. Harbaugh.       167,932         Harrow, J. W. Price.       167,393         Harrow and cultivator, J. W. Dilley.       167,873         Hat and fur box, J. C. Budd.       167,985         Hat brushing machine, Silver and Swords       167,935         Hatchway, C. M. Dalsen.       167,993         Hay, gathering and elevating, A. J. Park.       167,932	Valve, balanced, J. F. Allen. Vegetable cutter, J. T. Lohr. Vehicle spring, M. Gluck. Vehicle spring, M. Gluck. Vehicle wheel, E. Ball. Wagon axle, Lantz & Mitchell Wagon spring, L. P. Devendorf. Walls, construction of, G. H. Ballentine. Wash stand and water closet, R. C. Ball. Washing machine, T. P. Benton. Washing machine, T. B. Kirkwood. Watch balance staff, J. Thornton Watches, escapement for, Bourquin. Watchman's time check, Osborne & Le Grande. Water closet valve, P. D. Donnelly. Water, indicating velocity of, G. F. Deacon. Water wheel, H. Twitchell. Weather strip, G. P. Bennett.	167,865 168,033 167,892 167,971 167,843 167,972 167,978 167,978 167,907 168,065 167,872 167,925 167,998 167,998 167,956 167,820 167,820 168,009
Generator.furnace grate, A. Winton	Valve, balanced, J. F. Allen. Vegetable cutter, J. T. Lohr. Vehicle spring, M. Gluck. Vehicle wheel, E. Ball. Wagon axle, Lantz & Mitchell Wagon spring, L. P. Devendorf. Walls, construction of, G. H. Ballentine. Wash stand and water closet, R. C. Ball. Washing machine, T. P. Benton. Washing machine, T. B. Kirkwood. Watch balance staff J. J. Thornton Watches, escapement for, Bourquin. Watchman's time check, Osborne & Le Grande. Water closet valve, P. D. Donnelly. Water, indicatingvelocity of, G. F. Deacon. Water wheel, H. Twitchell. Weather strip, G. P. Bennett Wind wheel, turbine, L. G. Fellner Wind wheel, turbine, L. G. Fellner	167,865 168,033 167,892 167,871 167,873 167,973 167,972 167,978 167,907 167,907 167,925 167,998 167,904 167,956 167,950 168,065 167,964
Generator. furnace grate, A. Winton	Valve, balanced, J. F. Allen. Vegetable cutter, J. T. Lohr. Vehicle spring, M. Gluck. Vehicle wheel, E. Ball. Wagon axle, Lantz & Mitchell Wagon spring, L. P. Devendorf. Walls, construction of, G. H. Ballentine. Wash stand and water closet, R. C. Ball. Washing machine, T. P. Benton. Washing machine, T. B. Kirkwood. Watch balance staff, J. J. Thornton. Watch balance staff, J. J. Thornton. Watches, escapement for, Bourquin. Watchman's time check, Osborne & Le Grande. Water, indicating velocity of, G. F. Deacon. Water wheel, H. Twitchell. Weather strip, G. P. Bennett. Wind wheel, turbine, L. G. Fellner Windmill attachment, H. Weld. Wrench bars, etc., die for forming, A. G. Coes.	167,865 168,033 167,892 167,971 167,971 167,973 167,978 167,978 167,978 167,907 168,065 167,820 167,956 167,956 167,956 167,820 167,956 167,820 167,956
Generator. furnace grate, A. Winton.         168,075           Governor. J. Felber.         167,885           Grain, steaming, J. C. Hunt.         167,887           Grain binder, C. E. Donnellan.         167,997           Grist alarm, G. H. Eastman (r)         6,655           Harness, check guard for, F. Howard.         167,836           Harnow, I. N. Harbaugh.         167,996           Harrow, I. N. Harbaugh.         167,932           Harrow, J. W. Price.         167,932           Harrow and cultivator, J. W. Dilley.         167,879           Hat brushing machine, Silver and Swords.         167,935           Hat brushing machine, Silver and Swords.         167,932           Haty, gathering and elevating, A. J. Park.         167,932           Heater, M. W. Baily.         167,862           Heel trimming machine, J. H. Bussell.         167,874           Hinge, combination spring, G. Z. House.         167,930	Valve, balanced, J. F. Allen. Vegetable cutter, J. T. Lohr. Vehicle spring, M. Gluck. Vehicle wheel, E. Ball. Wagon axle, Lantz & Mitchell Wagon spring, L. P. Devendorf. Walls, construction of, G. H. Ballentine. Wash stand and water closet, R. C. Ball. Washing machine, T. P. Benton. Washing machine, T. B. Kirkwood. Watch balance staff J. J. Thornton Watches, escapement for, Bourquin. Watchman's time check, Osborne & Le Grande. Water closet valve, P. D. Donnelly. Water, indicatingvelocity of, G. F. Deacon. Water wheel, H. Twitchell. Weather strip, G. P. Bennett Wind wheel, turbine, L. G. Fellner Wind wheel, turbine, L. G. Fellner	167,865 168,033 167,892 167,971 167,971 167,973 167,978 167,978 167,978 167,907 168,065 167,820 167,956 167,956 167,956 167,820 167,956 167,820 167,956
Generator.furnace grate, A. Winton	Valve, balancea, J. F. Allen. Vegetable cutter, J. T. Lohr. Vehicle spring, M. Gluck. Vehicle wheel, E. Ball. Wagon axle, Lantz & Mitchell Wagon spring, L. P. Devendorf. Walls, construction of, G. H. Ballentine. Wash stand and water closet, R. C. Ball. Washing machine, T. P. Benton. Washing machine, T. B. Kirkwood. Watch balance staff. J. Thornton. Watches, escapement for, Bourquin. Watchman's time check, Osborne & Le Grande. Water wheel, the Company of G. F. Deacon. Water wheel, H. Twitchell. Weather strip, G. P. Bennett. Wind wheel, turbine, L. G. Fellner Wind wheel, turbine, L. G. Fellner Wind wheel, turbine, L. G. Fellner Wind wheel, turbine, L. G. Follner Windmill attachment, H. Weld. Wrench bars, etc., die for forming, A. G. Coes. Yarn, machine for spooling, A. M. Wade.	167,865 168,033 167,892 167,971 167,971 167,973 167,978 167,978 167,978 167,907 168,065 167,820 167,956 167,956 167,956 167,820 167,956 167,820 167,956
Generator. furnace grate, A. Winton.         168,075           Governor. J. Felber.         167,885           Grain, steaming, J. C. Hunt.         167,887           Grain binder, C. E. Donnellan.         167,997           Grist alarm, G. H. Eastman (r)         6,655           Harness, check guard for, F. Howard.         167,836           Harnow, I. N. Harbaugh.         167,996           Harrow, I. N. Harbaugh.         167,932           Harrow, J. W. Price.         167,932           Harrow and cultivator, J. W. Dilley.         167,879           Hat brushing machine, Silver and Swords.         167,935           Hat brushing machine, Silver and Swords.         167,932           Haty, gathering and elevating, A. J. Park.         167,932           Heater, M. W. Baily.         167,862           Heel trimming machine, J. H. Bussell.         167,874           Hinge, combination spring, G. Z. House.         167,930	Valve, balanced, J. F. Allen. Vegetable cutter, J. T. Lohr. Vehicle spring, M. Gluck. Vehicle wheel, E. Ball. Wagon axle, Lantz & Mitchell Wagon spring, L. P. Devendorf. Walls, construction of, G. H. Ballentine. Wash stand and water closet, R. C. Ball. Washing machine, T. P. Benton. Washing machine, T. B. Kirkwood. Watch balance staff, J. J. Thornton. Watch balance staff, J. J. Thornton. Watches, escapement for, Bourquin. Watchman's time check, Osborne & Le Grande. Water, indicating velocity of, G. F. Deacon. Water wheel, H. Twitchell. Weather strip, G. P. Bennett. Wind wheel, turbine, L. G. Fellner Windmill attachment, H. Weld. Wrench bars, etc., die for forming, A. G. Coes.	167,865 168,033 167,892 167,971 167,843 167,877 167,973 167,978 167,907 168,065 167,925 167,925 167,926 167,926 167,944 167,820 168,009 167,964 167,825 168,066

PIPE.-C. D. Grimm, Glenwood, N. ,657.-CIGAR BOX.-M. Hilson, New York city. 3,653.—Woolen Fabrics.—A. Jewell, Lawrence, Mass 3,659.—Gauntlet boxes.—B.G.Shults, Johnstown, N. Y 3,660.—Stove.—W. Tweeddale, Brooklyn, N. Y. 8.661.—Brush Holder Jaws.—C. B. Clark, Buffalo, N. Y. ,662.-Cane Handle.-T. R. Lovett, Philadelphia, Pa.

#### SCHEDULE OF PATENT FEES. On filing each application for a Patent (17 years).....815 On application for Reissue \$30 On filing a Disclaimer \$10 cation for De

#### CANADIAN PATENTS.

LIST OF PATENTS GRANTED IN CANADA,

September 20 to 28, 1875.

5,187.-J. G. Martin, Cobourg, Ont. Washing machine 5,188.-C. J. Riply, Cumberland, Ont. Tug pins for ve-

5,189.—I. Stebins, Boston, Mass., U. S. Hydraulic elevator. Sept. 20, 1875.

5,190.-R. S. Galbraith et al., Montreal, P. Q. Umbrella and parasol case. Sept. 20, 1875. 5,191.—J. Brakenshine, Kingston, Ont. Ship pump.

Sept. 22, 1875. 5,192.-H. J. Yeargin et al., Liberty, Tenn., U. S. Com bined hand roller and harrow. Sept. 23, 1875.

5,193.-D. W. Rawson, Croyden, N. H., U. S. Cloth washer. Sept. 24, 1875.
5,194.—J. McBean, Chicago, Ill., U. S. Stone and com

pound pavement. Sept. 25, 1875.
5,195.—S. Webster, St. Catherine's, Ont. Oil tank. Sep 5,196.-W. J. Parmlee Herkimer N. Y., U. S. Carriage axle box. Sept. 25, 1875.

5,197.—G. Kallmeyer et al., Hamburg, Germany. But ton hole machine. Sept. 25, 1875.

5,198.—J. Howe, Milford, Mass., U. S. Sand-papering machine. Sept. 25, 1875.
5,199.—J. D. Imboden, Richmond, Va., U. S. Car axle

lubricator. Sept. 25, 1875. 5,200.—H. F. Eberts, Detroit, Mich., U. S. Wheel tende

for vehicles. Sept. 25, 1875. 5,201.—A. H. B. Blauchard, Montreal, P. Q. Yard and

cravathelder. Sept. 25, 1975. 5,202.—M. Durand, Montreal, P. Q. Fire escape appa ratus, Sept. 25, 1875.

5,203.-G. W. Cook et al., Chicago, Ill., U. S. Safety attachment to car trucks. Sept. 25, 1875.

5,201.-W. W. Lambie et al., St. Mary's, Ont. Fanning mill. Sept. 25, 1875.

5,205.—S. S. Rycaman, Hamilton City, Ont. Lamp cleaner. Sept. 25, 1875.

5,206.-N. D. Martin et al., North Troy, Vt., U. S. Milk cooler. Sept. 25, 1875.

5,207.—A. H. Watkins, Wellesley, Mass., U. S. Vapor burner. Sept. 25, 1875.

5,208.-H. C. Moody, Oswego, N. Y., U. S. Carriage curtain. Sept. 28, 1875. 5,209.-D. Gurnsey, Watertown, N. Y., U. S. Milk

cooler. Sept. 28, 1875.
,210.—V. Colvin, Albany, N. Y., U. S. Portable boat.

Sept. 28, 1875. 5,211.—A. G. Rykert, Attica, N. Y., U. S. Carriage

painter's jack. Sept. 28, 1875. 5,212.-G. H. Jones, Rose, N. Y., U. S. Turbine water wheels. Sept. 28, 1875.

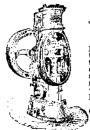
5,213.—J. W. Reed et al., Kalamazoo, Mich., U. S. Lubricator. Sept. 28, 1875.
 5,214.—S. Williams et al., Boston, Mass., U. S. Mitering

machine. Sept. 28, 1875. 5 215.—C. L. Holland, Ipswich, Mass., U. S. Lock nut. Sept. 28, 1875.

### Adrertisements.

## 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. Advervisements must be received at publication office as early as Friday morning to appear in next issue.



Washington, D. C., } Sept. 13, 1875.

WASHINGTON, D. C., J.
JNO. MAYHER,
Treas. Valley Machine Co., East
Hampton, Mass.
Dear Sir: The "Wright Bucket
Plunger Steam Pump" you built for
the Government "works like a
tep." Am sure it has never had its
equal in any of the Departments,
and I have no hesitancy in recommending this Pump to any one in
want of a first class, noiseless Steam
Pump. Very respectfully.
J. THOS. MILLER,
Chief Engineer U. S. House of
Representatives,
Send to us for Catalogue.
V. M. COMPANY.

A SUPERINTENDENT WANTED.

One of the largest Sewing Machine Companies in the United States wants to employ a first class practical mechanical engineer, and Superintendent. A man experienced in the manufacture of sewingmachines is desired. First class reference will be required regarding Ability, Honesv, Integrity, and Sobriety. Applicants will please give full name and place of residence, their experience, and the length of time engaged in the business, with whom, and where; the names of reference, and the amount of salary wanted, and, if convenient, inclose a photograph of themselves. Address B. C. O., care C. A. CLEGG ADVERTISING AGENT, TRIBUNE BUILDING, NEW YORK CITY.

#### 7MPERIAL GRANUM.

#### THE GREAT MEDICINAL FOOD.

This justly celebrated DIETETIC Preparation is, in composition, principally the GLUTEN derived from the White Winter Flint Wheat Cereal, a solid extract, the invention of an eminent chemist.

It has not only been highly recommended, but certified to by a large number of CHEMISTS and PHYSICIANS—representing a very high degree of medical science—as the SAFESI, MOST ACCEPTABLE AND RELIABLE FOOD for the growth of Infants and Children, and for Mothers lacking sufficient nourishment for their off-spring.

spring.
Unlikethose preparations made from animal or vinous matter, which are liable to stimulate the brain and irritate the digestive organs, it embraces in its elementary composition—

THAT WHICH MAKES STRONG BONE AND MUSCLE, THAT WHICH MAKES GOOD FLESH AND BLOOD

THAT WHICH IS EASY OF DIGESTION-NEVER CONSTIPATING.

THAT WHICH IS KIND AND FRIENDLY TO THE BRAIN.

AND THAT WHICH ACTS AS A PREVENTIVE OF THOSE INTESTINAL DISORDERS INCIDENTAL TO

CHILDHOOD. And while it would be difficult to conceive of anything in Food or Dessert more creamy and delicious, or more nourishing and strengthening as an aliment in

FEVERS, PULMONARY COMPLAINTS.

DYSPEPSIA, PROSTRATION OF THE SYSTEM. 
OR GENERAL DEBILITY.

its rare medicinal excellence in all intestinal Diseases, especially in

DYSENTERY, CHRONIC DIARRHŒA, AND CHOLERA INFANTUM,

has been incontestibly proven.
See circulars for testimonials. Sold by Druggists generally and at the wholesale depot by

JOHN CARLE & SONS, 153 Water Street, New York.

### Amateur Workers in FANCY WOODS

Can be supplied with the following HARD and RARE WOODS, placed ready for use: ½, 3-16, ½, ½ inch and upward. Cash to accompany orders. Rosewood. Satinwood, Holly. Walnut, Mahogany, Ebony, Red and White Cedar, Bird's-eye Maple, &c.

#### Geo. W. Read & Co.,

186 to 200 Lewis St., foot of 5th & 6th Sts., E.R., N.Y. Orders by mail will have prompt and careful attention. Inclose stamp for Catalogue and Price-List.

Buffalo Excelsior Pany Planer & Matcher



Best of its kind in nec.
Price, complete, \$2.75, Algo, Small, Piony Planers And
Planning Machine Krives,
which are recommended as
superior and extrain quality, los Scroll Work, Designs free on receipt of
stamp. For circulars givjug detailed information,
Address GEO, PARE,
Buffalo, N. Y.

# CLARK & COMPANY'S PATENT SELF-COILING, REVOLVING STEEL SHUTTERS

Can be readily fitted to Store Fronts, Rear Windows or other openings, making them FIRE AND BURGLAR PROOF, and affording absolute protection; also, WOOD SHUTTERS in various kinds of wood, suitable for store Fronts, Private Houses, Others, and School Partitions. Clark's shutters are self-acting, require no machinery or balance weights, and cannot get out of order. They are handsome in appearance, and are the best and cheapest shutters in the world. Are fitted to the new Pribuse Building, Delaward and Hudson Canal Building, Manhattan Building, Lenox Library Building, Have been for years in daily use in every principal city throughout Europe, and are endorsed by the leading architects of the world.

JAMES G. WILSON, Manager, 218 West 26th St., New York, and at London, Paris, Vienna, Berlin, Melbourne, &c., &c.

\$5 to \$20 per day at home. Samples worth \$1 free. Stinson & Co. Portland, Maine.

The TOLL-GATE! Prize Picture sent free! An fingenious gem! 50 objects to find! Address with stamp, E. C. ABBEY, Buffalo, NY.

CHUCKS Great reduction in prices of Wrought tron Scroll Chucks. Send for new list to A. F. CUSHMAN, Hartford, Conn.

TO ELECTRO-PLATERS, JEWELERS, AND WATCHMAKERS.

BATTERIES, CHEMICALS, AND MATERIALS, in sets or single, with Books of Instruction for Nickel or Silver Plating. THOMAS HALL, Manufacturing Electrician, 19 Bromfield Street, Boston, Mass. Illustrated Catalogue sent free.

\$10 TO \$500 INVESTED in Wall Street often leads to fortune. A 22 page book, explaining everything, and copy of the Wall Street Review

SENT FREE. JOHN HICK, ING & CO., Bankers and Brokers, 72 Broadway, N.Y. THE IMPROVED NIAGARA STEAM PUMP,

Hubbard & Aller, SOLE MANUFACTURERS Engines and Boilers, Pulleys, Shafting and Hangers

a Specialty.

A WEEK to Agents, Old & Young, Male & Female, in their locality. Terms & OUTFIT FREE, Address P. O. VICKERY & CO., Augusta, Me.

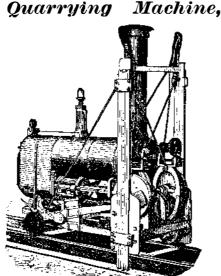
\$500 YN GOLD GIVEN AWAY, also 50 per cent Commission. You can make from \$12 to \$23 daily. FAM. JOURNAL GO., 232 Broadway, N. Y.



ASBESTOS ROOFING-ROOF COATING-ROOF PAINT-CEMENT for repairing Leaks. PAINTS all colors. BOILER FELTING-STEAM PACKING. FIRE PROOF COATING for wood work, &c. Sheathing,Lin-

, &c. These articles are ready for use and easily applied and for Pamphlets. Price Lists, Terms to Dealers, &c H. W. JOHNS, 87 Maiden Lane, N.Y.

Stone Channeling



WARDWELL PATENT,

FOR CUTTING STONE INTO VARIOUS SIZES AND DIMENSIONS IN ALL KINDS OF QUARRIES.

STEAM STONE CUTTER CO., RUTLAND, VT. SOLE PROPRIETORS AND MANUFACTURERS.

S STRONG H AND E CHEAP A TO CUTT BARS S ANGLES H AND E OLD A RAILS A BY SHAND OR POWER. W. X. STEVENS, E. Brookfield, Ms.

A CURIOSITY A ten dollar billof 1776sentfree for stamp. Address HURST & CO., 75 Nassau St. N. Y.

STEAM ROAD ROLLER—Improved design.
Superior, and cheaper than the imported ones.
Apply to
J. H. KILLEY & CO.,
Hamilton Contario. nan the imparted ones.

J. H. KILLEY & CO.,

Hamilton, Ontario.



BAND & SCROLL SAWS &c. &c.

INDIA RUBBER ror inventors and the Trade, made into any pattern at short notice, by F. H. HOLTON, 45 Gold St., Ne w York. Established in 1860.

TEW PATENT CAR FOR INCLINED PLANES conveniently arranged to carry PASSENGERS and VEHICLES at the same time. Descriptive Circular sent on application. Address J. EARNSHAW, Civil Engineer, N. W. Cor. 4th and Race Sts., Cincinnati, Ohio.

WE WANT to engage every unemployed man, woman and child. C. P. RICHARDS & CO., Hallowell, Mc.

WOODWORTH SURFACE PLANERS \$125. Planers and Matchers, \$350. S.C. HILLS, 51 Courtland street, New York.



# LeCount's Patent NACHINIST'S TOOLS

Solid and Homogeneous Guaranteed tensile strength, 25 tuns to square inch. An invaluable substitute for expensive forgings, or for Cast Iron requiring great strength, Send for circular and Drice list to OHESTER STEEL CASTING CO., Evelina st., Philadelphia, 1 a.

VOLNEY W. MASON & CO.,

Manufacturers of
PAT. FRICTION PULLEYS, FRICTION CLUTCHES
for connecting Shafting and Gearing,
HOISTING MACHINERY AND ELEVATORS.
PREVIDENCE, R. I.

RAWING INSTRUMENTS – DRAWING Materials, Surveying Compasses, Transits, Levels, Tape Measures, Field Glasses, Spy Glasses, Microscopes, Telescopes, Barometers, &c., &c.

Telescopes, Barometers, &c., &c.

JAMES W. QUEEN & CO.,

924 Chestnut Street, Philadelphia, Pa.
601 Broadway, New York.

Catalogues, Part 1st. Mathematical; Part 2d, Optical; Part 3d, Magic Lanterns; Part 4th, Philosophical Instruments, each ten cents.

Machinery, Floorers. Planers and Matchers, Single and Double Surfacers, Moulding Machines, Scroll Saws, Suction and Buast Fans for Shavings, etc. D. J. LATTI-MORE, Sist and Chestnut St., Philadelphia, Pa.



Relief Plates for Book, Newspaper, Catalogue and Jircular Illustrations Cheaper than Wood Cuts. The Scientific American uses our plates. Send stamp for Illustrated Circular.

E. M. MAYO'S PATENT BOLT CUTTER Send for Illustrated Circular, Cincinnati, Onio .

Call at Fair American Institute and See NEW DRAWING PRESS & OTHER TOOLS. STILES & PARKER PRESS CO., Middletown, Ct. Will meet parties by appointment.

WANTED.—In every city and county in Michigan, an active agent for the exclusive sale of a staple article in the Grocery and Drug line, of daily use in every family. A permanent and lucrative cash business. Energetic men can make \$4,000 per annum. Address, enclosing stamp for answer, J. H. BURLESON, 203 Greenwich Street, New York City.

PATENT Planing & Matching

and Molding Machines, Gray and Wood's Planers, Self-ofing Saw Arbors, and other wood-working machinery, S. A. WOOD'S MACHINE CO., [9] Liberty St., N. Y. Seud for Circulars, etc. [67 Sudbury St., Boston.

WILL) AM HENRY KING-ALBUMEN MANUFAC TERRIE, 78 & 80 St. Andrew Street, L(verpool, Eng

THE IMPROVED SLIDE VALVE for Steam Engines has been constantly need four years without repairs, and is as good as ever. The gain in power is always one fourth, often more, with less fuel. Agents wanted. Circulars free.

J. F. TALLANT. Burlington, Iowa.

WITHERBY, RUGG & RICHARDSON, Manufacturers of Woodworth Planing, Tongueing, and Grooving Machines, Daniel's Planers, Richardson's Patent Improved Tenon Machines, Mortising, Moulding, and Re-Saw Machines, and Wood-Wocking Machinery generally, 25 Salisbury Street, Worcester, Mass. (Shop formerly occupied by R. BALL & CU.)
L. B. WITHERBY. G. J. EUGG. S. M. EICHARDSON.

\$12 a day at home. Agents wanted. Outfit and terms free. TRUE & CO., Augusta, Maine.

NOMPLETE ILLUSTRATED CATALOGUE J FREE-Foot Lathes, Foot Scroll Saws, Fine Machinists' and Amateur Tools, Improved Work Holder, Taps and Pies, Supplies of all kinds. JACKSON & TYLER, 16 German Street, Baltimore, Md.

2 FOR ONE OF THE BEST FILE GUIDES EVER made, for guiding the file while filing saws. Manufactured by E. ROTH & BRO., New Oxford, Pa.

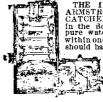
5000 AGENTS WANTED—To Sellthe Oriental Stationery and Jewelry Package, the largest and fastest selling package in the world. Mailed for 20c. Address R. L. FLETCHER, will Chambers St., New York

FINE TOOLS

For Machinists, Jewelers, Engravers. Watchmakers,
Amateurs, and others, Also, a fine assortment of File
and steel Wire Supplies, at FRASSE & CO.'S, 62 Chatham Street, New York.

#### STEAM PUMPS.

FIRST PRIMES, VIENNA, FARIS, NEW YORK, BALTIMORE, BOSTON.
Send for circular of recent parameterised in revenue.
THE NORWALK IRON WORKS, Double Norwalk, Conc.



THE IMPROVED CELEBRATED ARMSTRONG HEATER AND LIME CATCHER removes and prevents Scales in the Boilers by supplying them with pure water. Will save its cost in fuel within one year. All parties using steam should have one.

For particulars and circularies and circularies was supplying the property of the control of the property of the control of the c

should have one.
For particulars and circulars, address
BAUGHMAN, CURTIS &
KNIGHT, MANUFACTURERS,
Toledo, Ohio.
Machinists WANTED to act
as Local Agents.

### P. BLAISDELL & CO..

Worcester, Mass.,

Manufacturers of the Blaisdell Patent Upright Drills and other first-class Machinist's Tools.



A DVERTISERS WHO DESIRE TO REACH COUN try reasers in the West, can do so in the best and cheapest manner by using one or more sections of Kellogg's Great Newso-per lists. Apply to A. N. KELLOGG. 79 Jackson St., Chicago, III.

#### HAIR-FELT----HAIR-FELT. FOR COVERING

BOILERS & PIPES.

TW Discount to the Trade. AMERICAN HADE FELT MILLS, all Front Street, New York

OLUBLE GLASS—All strengths and clear as water, from 44 to 60° B., 1 715 spec. grav. For sale by L. FEUCHTWANGER & CO., 180 Fulton St., N. Y.



IMPROVED MACHINERY for STAVE ningle and Handles, Cabinet Maker's Ma Gauge Lathe, Dackee's Automatic Sac Key Seat Curting, Polley Boring and Radfat Dr.Es, Steam Engines, and Bailey Ma hines, Cable and Sheaves for trans-ese to, T. R. BAILEY & VALL, Luckpor

IRON & WOOD WORKING MACHINERY OF EVERY DESCRIPTION.

## Cold Rolled Shafting.

HANGERS, PULLEYS, COUPLINGS, BELTING, &c &c. Send for Illustrated Catalogue and Price List. GEORGE PLACE,

121 Chambers & 108 Reade Sts. N. Y. City.

With Scroll and Circular Saw Attachments, Slide Rest, Tools, &c.; also Small Engine Lathes, Metal Hand Planers, &c. Neatest designs, superior finish Low Prices. Our new Catalogue describes these and every tool necessary for the Amateur or Artizan. Send for it.

WM. L. CHASE & CO. WM. L. CHASE & CO., 95 & 97 Liberty St., New York

Planing & Matching, 

SAFETY HOISTING Machinery.

OTIS, BROS. & CO No. 348 BROADWAY, NEW YORK. VINEGAR. HOW MADE IN 10 Wine, or Molasses, WITHOUT USING DRUGS. Address F. I. SAGE, Vinegar Maker, Springfield, Mass.



BOOKWALTER ENGINE Compact, Substantial, Economical, and Easily Managed. Guaranteed to work well and give full powercise imed. Engine and Boiler complete, including Governor, Pump, &c., with shipping boxing, at the low price of

3 Horse Power......\$252 00 JAS. LEFFEL & CO.,

JAS. LEFT 12.
Spring field, Ohio; or 103 Liberty St., New York City
WINTER. ROSE BUDS IN WINTER.

Now Ready.—Roses for winter bloom, and fall planting. We send strong Pot Roses that will bloom quickly safely by mail, post-paid. Purchasers' choice of over 200 splendid ever blooming varieties 5 FOR \$1.00. 12 FOR \$2.00. our elegant descriptive catalogue. containing



Small Tools of all kinds; also GEAR WHEELS, parts of MODELS, and materials of all kinds. Castings of Small Lathes, Engines, Slide Rests, &c. Catalogues free, GOODNOW & WIGHTMAN, 23 Cornhill, Boston, Mass.

Machinists' Tools, sizes at low prices. E. GOULD, Newark, N. J.

MAGNETS-Permanent Steel Magnets of any form or size, made to order by F. C. BEACH & CO..246 Canal St., New York. Makers of the celebrated Tom Thumb and Miniature Telegraph Instru-