The State of U.S. Science as Reflected in Restored 18’th Century Patents

Brigitte Servatius
Hopkins, S., Pot and pearl ashes, 31 Jul 1790

The United States

To all to whom these presents shall come, Greeting.

Whereas Samuel Hopkins of the city of Philadelphia and state of Pennsylvania hath discovered an improvement, not known or used before, such Discovery in the making of Pearl ash and Pearl ash by an apparatus and Process, that is to say, in the making of Pearl ash 1st by burning the new Ashes in a Furnace, 2nd by dissolving and boiling them when so burnt in Water, 3rd by drawing off and setting the clay, and 4th by boiling the clay into dregs which are the true Pearl ash, and also in the making of Pearl ash by flooding the Pearl ash so made as aforesaid, which Operation of burning the new Ashes in a Furnace preparatory to their Dissolution and boiling in Water, is new, leaves little Addition; and produces a much greater Quantity of Salt: These are therefore in pursuance of the Act, entitled "An Act to promote the Progress of useful Arts," granted to the said Samuel Hopkins, his Heirs, Administrators and Assigns, for the Space of fourteen Years, exclusive of any power or right of using and sending to others the said Discovery of burning the new Ashes previous to their being dissolved and boiled in Water, according to the true intent and meaning of the Act aforesaid. In Testimony whereof I have cause these letters to be made patent, and the seal of the United States to be hereunto affixed.

Given under my hand at the City of New York this thirty first Day of July in the Year of our Lord one thousand seven hundred and Ninety.

City of New York, July 31, 1790.

I hereby certify that the foregoing Letters Patent were delivered to me in pursuance of the Act, entitled "An Act to promote the Progress of useful Arts," that I have examined the same, and find them conformable to the said Act.

Em: Randolph, Attorney General for the United States.
S. G. Dorr, Cloth Shearing Machine, 1792
Bush, J., Gridiron, 17 Mar 1793
Whitney, E., Ginning cotton, 14 Mar 1794
Whitmore, A., Manufacturing wool cards, 5 Jun 1797
A. The beam.
B. Right hand handle.
C. Left hand handle.
D. Model, 8 feet, 8 inches wide from the face behind on the ground.
Newbold, C., Ploughs, 26 Jun 1797
Bruff, T., Extracting teeth, 1 Jul 1797
Bruff, T., Coffee grinding, 8 Jan 1798
Wilkinson, D., Machine for cutting screws, 14 Dec 1798
Dearborn, B., Double centered mill for wind or water, 30 Apr 1799
Stillman, W., Veneering plough, for cabinet work, 16 Mar 1801
Reed, J., Method of rolling out iron for nails, 15 Jul 1802
Chemical Processing

38 patents

Salt Production 11
Pigments (dyes and paints) 7
Potash (fertilizer) 5
Preservatives 5
Tanning 4
Soap 2
Ore processing 3
Gunpowder 1
Processing Raw Agricultural products

42 patents

- Grain thrashing and cleaning 11
- Ginning cotton 7
- Breaking flax 4
- Mashing (for beer brewing) 4
- Flour 2
- Tobacco 1
- Cotton seed oil 1
Processing Raw Animal Products

10 patents

tanning 7
cleaning whale oil 4
churning cream 2
cutting fur 1
Farming

Newbold, C.  Ploughs
Spooner, E.  Machine for planting corn, beans,
Lorillard, P.  Machine for cutting tobacco
Kinsley, A.  Cutting tobacco
Distilling

Putnam, Distilling of liquor
Read, Distilling
Simpson, Distilling spiritous liquor
Anderson, Steam still
Kincaid, Still
Taylor, Worm still of tinned sheet copper
Hall, Astringent wood and vegetables in distilling
Anderson, Brewing with indian corn
Anderson, Condensor for heating wash in distilling
Krafft, Construction of stills
Paine, Still
Staples, Stills
Allison, Mode of improving spirits

Baking

Pettibone, Breaking dough and paste
Banks, Making bread
Materials Processing

Wood processing 14
Making bricks 11
Stone cutting and polishing 9
Rope Making 6
Candle Making 8
Paper Making 7

House Construction

Parsons, Making window sashes
Cooly, Chimneys
Young, Hanging windows without weights
Wallis, Moveable and suspended seal and beam
Johnson, Flat roofed houses and balconies
Kennedy, Fastening, raising and supporting window sashes
Textiles

Shearing and napping  5
Spinning           4
Weaving            4
Washing and dressing  4
Wool carding       1
Oiling silk and linen  1
Metal and Ironworking

Making Nails 33
Stoves 8
Rolling iron 3
Sharpening and working 2
Bellows 2
Cutting screws 1
Tempering 1
Casting Iron 1
Welding 1
Steelyard 2
Weaving wire 1
Power

Steam engines 15
Raising water 12
Water mills 7
Hydraulic engines 7
Wind mills 6
Tide mills 4
Ships and Boats

navigation tools 9
propellers 7
steam boats 5
docks 5
rigging and sails 3
bilge pumps 3
ship’s ventilators 2
animal powered craft 2
ship construction 2
boat to travel downstream 1
boat to travel upstream 1
submarine 1

Land Transport

bridges 5
carriage construction 3
Steam powered carriages 2
Sleigh runners 1
Manufacturing

Bailey,  Punches for making impressions
Livingston,  Diminishing friction of spindles
Gordon,  Manufacturing boots
Tryon,  Cutting and pointing comb teeth
Du Val,  Preparation of steel for cutting glass
Pratt,  Machine for making combs
Shotwell,  Metal boxes for wood or iron to turn in
Howard,  Manufacturing of boots and shoes
Green,  Mill for grinding painters’ colors
Bruff,  Mode of manufacturing spoons
Sharples,  Giving motion to wheels within cylinders
Stoves

Peale, Fire place
Payne, Soap stone stove
Evans, Stoves and grates
Butter, Machine for cooking
Boureau, Economical house and ship steam kitchens

Finished Manufactured Goods

Kuhn, Bedstead
Morey, New method of turning a spit
Bush, Gridiron
Pasamore, Machine for cooking and boiling, called a conjurer
Stickney, Saddles
Bruff, Coffee grinding
Brunel, Machine for writing with two pens
West, Gun lock
Safety

Green, Conductor for conveying persons and goods from houses on fire
Taylor, to stop the progress of fire
Kersey, Fire engines
Ormsbee, Screw engine for throwing water
Hamlin, Capstan fire engine
Lyon, Engine for throwing water
Putman, Fire stop
Medicine

Perkins, Metallic points to remove pains,
Lee, Composition of bilious pills
Mckechnie, Stays for removing incurvatures of spine
Duvall, Anti-bilious pills
Bruff, Extracting teeth
Cooley, Composition for pills
Lee, Bilious pills
Hawks, Hawks’ pills
Stone, Elastic truss for ruptures
Lazarus, Anti-bilious stomach cordial
Wheaton, Jaundice bitters
Strong, Axle tourniquet
Peale, Portable vapor bath
Rawson, Anti-bilious pills
Printing

Kinsley, Printing press
Dixey, Machine for printing paper, leather,
Robotham, Machine for ruling paper,
Hutton, Art of engraving
Law, New plan for printing music

Music

Leslie, Construction and tone of bells
Mclean, Piano forte
Hawkins, Piano forte
Hawkins, Musical instruments
Military

Hatch, Mode of making and discharging chain and cleaver shot

Miscellaneous

Robbins, Improved mode of carrying fish in warm weather
Anderson, Brewing with indian corn
Allison, Paper manufactured from corn husks
Pittman, Effeminate ropery for spinning rope yarn
West, Metal amulets
Mcfarland, Federal balloon
Grout, Telegraph
Aveilhe, Machine for raising water (perpetual motion)
Perkins, Check to detect counterfeits