



arranged and combined as herein described and for the purposes set forth.
52,639.—Clasp for Skirt Hoops.—George W. Cheesman (assignor to himself and J. W. Osborne), Ansonia, Conn.
I claim in clasps for skirt hoops, notching their ends, substantially as and for the purpose above set forth.

52,652.—Buckle.—Julius Waterman, New York City, assignor to himself and Joseph Mayer, Brooklyn, N. Y.
I claim the buckle for shirt bands, etc., formed of two rectangular loops, one over the other, as specified.
52,653.—Machine for Determining the Load of Car Axles.—J. H. Ehrhardt, Dresden, Saxony:
I claim, First, The supporter, A, B, with lip, a, and leg, d, in combination with the scale beam, C, and steelyard, D, or its equivalent constructed and operating substantially as and for the purpose described.

S. D. R., of Tenn.—Sugar is obtained from sorghum by expressing and evaporating the juice. Full accounts of the process, with illustrations of the apparatus, have appeared in our back volumes. Sirup is obtained without difficulty, but most farmers, working on a small scale, fail to obtain granulated sugar.
A. F. C., of Ill.—In this country breast wheels have long since superseded overshots, and now turbines are generally taking the place of breast wheels. The highest power has been obtained from Stevensons', but others much cheaper are said to give very nearly as good results.

PATENT OFFICE.
PATENTS GRANTED FOR SEVENTEEN YEARS.
MUNN & COMPANY.

In connection with the publication of the SCIENTIFIC AMERICAN have acted as Solicitors and Attorneys for procuring "Letters Patent" for new inventions in the United States and in all foreign countries during the past twenty years. Statistics show that nearly ONE-HALF of all the applications made for patents in the United States are solicited through this office; while nearly THREE-FOURTHS of all the patents taken in foreign countries are procured through the same source.

Judge Mason, formerly Commissioner of Patents, says, in a letter addressed to us:—"In all your intercourse with the office, I always observed a marked degree of promptness, skill, and fidelity to the interests of your clients."
Ex-Commissioner Holt says:—"Your business was very large, and you sustained and justly deserved the reputation of marked ability and uncompromising fidelity to the interests of your clients."

EXAMINATIONS.—If an inventor wishes our opinion in regard to the probable novelty of his invention, he has only to send us pencil or pen-and-ink sketch of it, together with a description of its operation. For an opinion, without examination at the Patent Office, we make no charge, but if a

PRELIMINARY EXAMINATION AT THE PATENT OFFICE is desired, we charge the small fee of \$5. This examination involves a personal search at the Patent Office of all models belonging to the class, and will generally determine the question of novelty in advance of an application for a patent. Up to this time we have conducted over ELEVEN THOUSAND Preliminary Examinations, thus showing a more intimate knowledge of inventions at the Patent Office than can be possessed by any other person or firm.

IF an inventor decides to apply for a patent, he should proceed at once to send us by express, charges prepaid, a model not over one foot in size, and substantially made. He should also attach his name and residence to the model.

Table with 2 columns: Fee description and Amount. Includes 'On filing each caveat', 'On filing each application for a Patent, except for a design', 'On appeal to Commissioner of Patents', etc.

FOREIGN PATENTS.—Messrs. MUNN & CO. have had more experience than any other solicitors in this country in procuring foreign patents, and have old established agents in London, Paris, Brussels, Berlin, Vienna, and other large cities. Foreign business should never be entrusted to other than experienced agents.

Messrs. MUNN & CO. give special attention to the preparation of Caveats, and to the prosecution of the EXTENSION OF PATENTS, Reissue of DEFECTIVE PATENTS, REJECTED CLAIMS, INTERFERENCES, and DISCLAIMERS. They also prepare ASSIGNMENTS, LICENSES, AGREEMENTS, and CONTRACTS, in reference to Patents and will advise patentees when their rights are infringed in reference to bringing suits against INFRINGERS. In connection with a Patent Lawyer of eminent ability, they prepare and conduct cases in the United States Courts. Indeed, there is no branch of Patent business which MUNN & CO. are not prepared to undertake.

REISSUES.

2,168.—Machine for Cutting Splints.—Jonathan C. Brown, Brooklyn, N. Y. Patented June 21, 1864. Reissued Sept. 12, 1864.

I claim cutting forms from wood in the manner described, when the knives on the revolving cylinder are set at different angles as and for the purpose set forth.

2,169.—Making Hollow Articles of India-rubber.—Charles Goodyear, Jr., New York City, executor of estate of Charles Goodyear, deceased. Patented April 25, 1848. Extended 7 years.

What is claimed as a new article of manufacture and trade are hollow, vulcanized india-rubber articles, the external shape of which is produced by internal pressure derived from an elastic fluid.

2,170.—Making Hollow Articles of India-rubber.—Charles Goodyear, Jr., New York City, executor of estate of Charles Goodyear, deceased. Patented April 25, 1848. Extended 7 years.

I claim the above-described process of making hollow spheres, various hollow toys or other hollow articles of caoutchouc, the same consisting in the employment of a mold, and heat and air or its equivalent, substantially in the manner and under the circumstances above set forth.

2,171.—Machine for Making Kettles.—Hiram W. Hayden, Waterbury, Conn. Patented Dec. 16, 1851. Extended 7 years.

First, I claim the combination of mechanism constructed and arranged substantially as specified, for making kettles and similar articles, in substantially the manner set forth.

2,172.—Horse Shoe.—J. Wilson Hodges and P. De Murquionds, Baltimore, Md., assignees of J. Wilson Hodges. Patented July 4, 1865.

I claim the attachable and removable roughing bar, C, provided with calks and countersunk or let into the face of the shoe, substantially as described.

2,173.—Wood-bending Machine.—John Philip Lelzelter, Lancaster, Pa. Patented Feb. 21, 1865.

First, I claim the winced or framed side levers, E, held by a pivot or hinge fixed by a bolt or plate on each side of the drum, substantially in the manner shown and specified.

2,174.—Roller for Wringers.—Joseph F. Pond, Cleveland, Ohio. Patented April 5, 1864.

I claim the application of canvas, cloth, or other similar material, for the rollers, in the manner shown and specified, and protecting rollers, and to prevent the shaft getting loose or turning in the roll, as and for the purpose specified.

2,175.—Lantern.—Wm. Westlake, Chicago, Ill. Patented Sept. 26, 1865.

First, I claim the band, d, in combination with the band, b, for the purpose set forth.

2,263.—Door Lock.—John H. Barnes, Brooklyn, N. Y.
2,264.—Piano Stool.—Charles Zeuner (assignor to M. Greenwood & Co.), Cincinnati, Ohio.

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