

that time to this their field of operations has been steadily enlarged. They now employ over 600 hands, and their buildings cover about six acres of ground. They have one 400 horse power engine, and two water wheels; for one of the latter they obtain the water from the Mad river, and for the other from the Naugatuck, their works being beautifully situated along the left bank of the latter, just below the entrance of the Mad. The present company was incorporated in 1843; but even the extensive business which it conducts hardly tells the full story of its success, for the company or its members have at different times started several other manufacturing industries, which are properly only offshoots, as it were, of the parent business, but which have now grown to be of large dimensions.

The company have stores at 78 Reade street, New York; 57 Oliver street, Boston, and 17 North Seventh street, Philadelphia. Mr. Charles Benedict is President and Treasurer of the company, and Mr. Charles Dickinson, Secretary.

A NOVEL SHADING PEN.

The annexed engraving represents a new instrument for plain and ornamental lettering, and is adapted to the use of bookkeepers, artists, markers, clerks, and penmen generally. The manipulation of the pen being purely mechanical and automatic, any person writing an ordinary hand can use it successfully and with satisfactory results. Its use familiarizes the eye with uniform design, so that the regular hand writing is rapidly improved. Shaded letters may be produced as readily as the plainest, and of such quality as to compare favorably with steel engraving or lithographic work. Several widths of this pen are made—one eighth, three sixteenths, and one fourth—each of which will make any width of line, from that of a hair line to the full width of the pen. They are made entirely plain throughout their entire width, or arranged to shade one side of the line produced according to the taste of the writer.

These pens are inexpensive and must prove very useful in nearly every branch of business. Bookkeepers, with slight practice, can make ledger headings so uniform and artistic in appearance as to be quite beyond the comprehension of persons unfamiliar with the simple manner of their production. Any kind of ink may be used. The inventor informs us that more than seventy distinct and brilliant shades of color may be produced with the several colored inks adapted to this pen and in common use. The construction of the pen will be understood from the engravings, the larger view showing the pen in actual use, the smaller views showing the different sizes of pen.

Further particulars in regard to this useful invention may be obtained by addressing the patentee, Mr. J. W. Stoakes, Milan, Erie County, Ohio.

NEW WALL TENT AND STOVE.

A stove is often a necessity and always a desirable comfort in camp; for even in mid-summer there are chilly mornings and evenings and rainy days, when the comfort of a little heat in the tent is greatly to be desired. All who have had experience in camping know that the proverbially unmanageable stovepipe is most unmanageable in a tent. After ripping a hole in the tent, and getting the stovepipe in place, it is no uncommon experience to replace it again and again, after the wind has detached it from the stove and caused it to tumble; and should the pipe be permanently attached to the stove, the matter is made even worse, as not only the pipe but the stove also must sooner or later come down. These difficulties are not by any means all that can be brought as objections to the ordinary camp stove and its accessories. It is a cumbersome addition to the equipage, and takes up a great deal of valuable room in a tent where there is very little room to spare.

The Hobbs tent frame and stove overcome the difficulties enumerated, and afford a compact, light, and efficient cooking and heating apparatus, well adapted to the wants of military men, sportsmen, surveyors, and engineers, for camp meetings, pleasure camps, and for all who dwell in tents during a portion of the year. It is particularly well fitted for cooking, and its application to kitchen tents will not be among the least valuable of its uses.

The invention consists in substituting for the ordinary tent poles a frame composed of a ridge and hollow upright of galvanized sheet iron, and a wooden pole of the ordinary form.

The hollow upright, forming the stovepipe as well as one of the supports of the tent, is of a special patented

construction, securing great strength and rigidity, and at the same time being very light. It sets in from the end of the tent a sufficient distance to prevent injuring the canvas by heating, and its upper end is provided with a chimney cap or cowl, which projects over the canvas. Near the lower extremity of the hollow upright a stove is attached in such a way that it accompanies the tent in all its swaying motions. The stove is supported by the upright and a single hinged leg, and is readily and easily placed and as readily detached and put aside when not in use.

Referring to the engraving, A is the stove which is

subjected to acid bath, for cleaning, and then buffed to render the surface smooth and bright. It is then boiled in a tin or other metallic solution. The solution will deposit evenly over the entire surface, and the polished portions will be left brilliant, thereby forming a fine contrast with the unpolished surface and giving a fine polish and effect. The polishing previous to the electroplating, and the buffing subsequent thereto, are essential steps in the process, and by the boiling in a metallic solution the desired color and a bright clean finish are obtained without further labor.

An improvement in the class of automatic car couplings

in which a bar is employed as the connecting device in place of the link, and is made to engage with spring jaws or catches located within the draw heads, such jaws or catches being operated by levers and connecting rods for the purpose of withdrawing them from engagement with the bar when it is desired to uncouple, has been patented by Mr. James H. Henley, of Leadville, Col.

A simple, convenient, and effective device for stretching wires along posts in the making wire fences, has been patented by Mr. Joshua Fowle, of Iowa City, Iowa. The invention consists of a clamp provided with devices for adjusting and holding it upon a post, and provided also with crank and crank-shaft for stretching and tightening the wire.

An improvement in the class of invalid beds having adaptation and attachments for elevation of the head and shoulder portion, and for introduction of a bed pan beneath a removable section of the mattress, has been patented by Mr. Chambers M. Campbell, of Nashville, O.

An improvement in the class of ironing machines in which the clothes or goods to be pressed are carried between heated rollers or plates by means of endless traveling aprons, has been patented by Mr. Morris Steinbock, of New York city.

A simple, durable, and easily actuated alarm attachment for doors has been patented by Mr. Charles F. West, of Philadelphia, Pa. The invention consists of a peculiar arrangement of lever, striker, and trigger that render the alarm especially durable and of easy operation.

A safety appliance for releasing horses has been patented by Mr. Benjamin F. Strange, of Corvallis, Montana Ter. This invention consists in a hitching appliance so connected with the horse's halter that the halter will be cut if the animal should become entangled in it.

Mr. Mortimer Shea, of Nashville, Tenn., has patented an improved device for attachment to gas meters, to guard against any adjustment of the meter that will cause gas to pass through without being registered, and to indicate to the inspector if there has been any attempt to tamper with the meter.

An improvement in window sashes, patented by Mr. Alphonse Friedrich, of Brooklyn, N. Y., relates to lead sashes, such as are used in illuminated or ornamental windows. As heretofore constructed such windows have been strengthened by iron rods placed at intervals diagonally across the lead frames, and secured thereto by small wires twisted around the bars and soldered to the lead cross strips. Such bars are unsightly. They disfigure the designs, and in large windows the lead sash between the bars is not protected. The object of this invention is to strengthen the lead sashes where required by metal wires, which will be soldered to and hid by the sash.

An improvement in cannon has been patented by Messrs. Patrick P. Brannon and Thomas B. Bunting, of New York city. The invention relates to improvements in breech-loading cannon, and particularly to the construction of the breech, the breech block or wedge, and the manner of loading and firing the gun.

A simple device for stretching carpets on the floor, patented by Mr. John B. Eddy, of Stevens Point, Wis., consists of a T-head, with claws for taking hold of the carpet, attached to a ratchet bar spliced to another bar carrying a lever, with which the first bar is moved out from the other, and a pawl or dog which engages the ratchet and retains the bar in the position into which it is moved by the lever.

A wash bench susceptible of being raised in height and of being compactly folded has been patented by Mr. Abram Severson, of Auburn, N. Y. It consists of a tripod, two of the legs

whereof are fixed to the head and provided with casters, while the third is pivoted in the head and can be folded around near the other two.

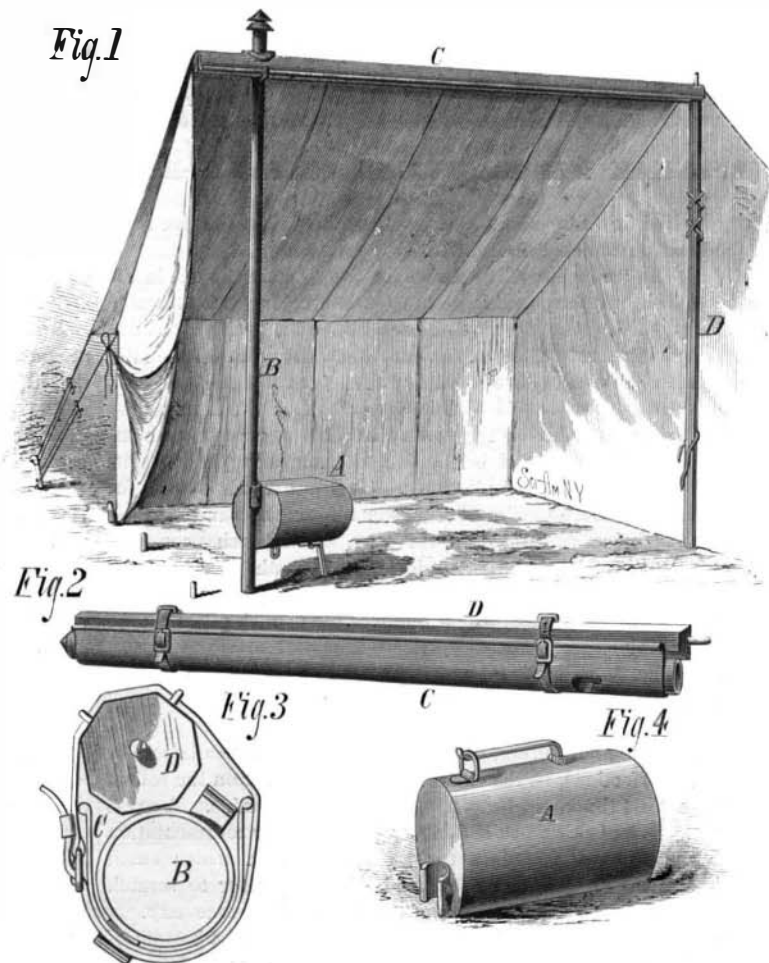
Mr. John A. Hollem, of New York city, has invented an improved trap for catching rats, mice, gophers, and other animals, which is so constructed as to catch an unlimited number of animals in succession. It is simple in construction and convenient in use.



STOAKES' AUTOMATIC SHADING PEN.

attached to the vertical pipe, B, and the latter extends upward through the hollow ridge, C. The other end of the ridge is supported by the pole, D. The frame folds compactly together, as shown in the perspective view, Fig. 2, and transverse section, Fig. 4, and is secured by means of straps attached to the wooden pole, D. The chimney cap is carried in the stove, and the leg of the stove is converted into a handle, as shown in Fig. 3.

It will be seen that nothing is added to the bulk of the tent fixtures, but the stove, and the frame is more compact and portable than the ordinary poles. This useful invention has been covered by two patents by Capt. Charles W. Hobbs, of the U. S. Army. Mr. William A. Percy, of Plattsburg, Clinton county, N. Y., is agent and manufacturer. The inventor may be addressed in care of Mr. Percy.



HOBBS' WALL TENT AND STOVE.

MISCELLANEOUS INVENTIONS.

Mr. Joseph Kintz, of West Meriden, Conn., has patented an improved process for giving an ornamental surface or finish to iron castings, which process is as follows: The casting is first rolled or tumbled in the usual manner, and polished on the portions of the surface that are to have a polish on the finished article, and then the casting is coated with copper or other metal by electroplating. It is next