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It has been the design of the publishers to not only furnish, in convenient form for preservation, a synopsis of the PATENT LAW and PRACTICE, but to answer a great variety of questions which have been put to them from time to time during their practice of upwards of seventeen years, which replies are not accessible in any other form. The publishers will promptly forward the pamphlet by mail, on receipt of six cents in postage stamps.

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One hundred and six (106) cannon at Navy Yard, Brooklyn. Forty-six (46) cannon at Navy Yard, Portsmouth. The above guns are to be sold by the pound, and one-half the purchase-money is to be paid at the completion of the sale, and the other half upon the removal of the guns by the purchaser, which removal must take place within ten days after the sale, and at the expense of said purchaser. H. A. WISE, Chief of Bureau.

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DEPARTMENT OF AGRICULTURE, WASHINGTON, D. C., Dec. 15, 1863. To the Growers and Manufacturers of Flax and Hemp:

THE COMMISSIONERS APPOINTED BY THIS DE-partment, consisting of Hon. J. K. Morehead, of Pennsylvania, William M. Bailey, of Rhode Island, and John A. Warder, of Ohio, to consider the following appropriation made by the last Congress, viz:—"For investigations to test the practicability of cultivating and preparing flax and hemp as a substitute for cotton, twenty thousand dollars." Having met, and after several days' investigation, believing that a further and fuller notice of their investigations might produce valuable results, adjourned to meet again on Wednesday the 24th day of February next, at 12 o'clock M. They request all interested in the distribution of this appropriation, or anxious to develop the subject for the public good, to send to this Department, on or before that day, samples of the hemp and flax in the different stages of preparation; of the fibers and fabrics prepared by them, accompanied by statements of the various processes used, and the cost of production in each case; also, descriptions of the kind and cost of machinery used, where made, &c., together with any and all information that may be useful to the Commission. This information is necessary before an intelligent distribution of the appropriation can be made. ISAAC NEWTON, Commissioner.

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INVENTORS AND CONSTRUCTORS OF NEW AND useful Contrivances or Machines, of whatever kind, can have their inventions illustrated and described in the columns of the SCIENTIFIC AMERICAN on payment of a reasonable charge for the en-graving.

No charge is made for the publication, and the cuts are furnished to the party for whom they are executed as soon as they have been used. We wish it understood, however, that no second-hand or poor engravings, such as patentees often get executed by inex-perienced artists for printing circulars and handbills from, can be admitted into these pages. We also reserve the right to accept or reject such subjects as are presented for publication. And it is not our desire to receive orders for engraving and publishing any but good Inventions or Machines, and such as do not meet our approb-ation in this respect, we shall decline to publish.

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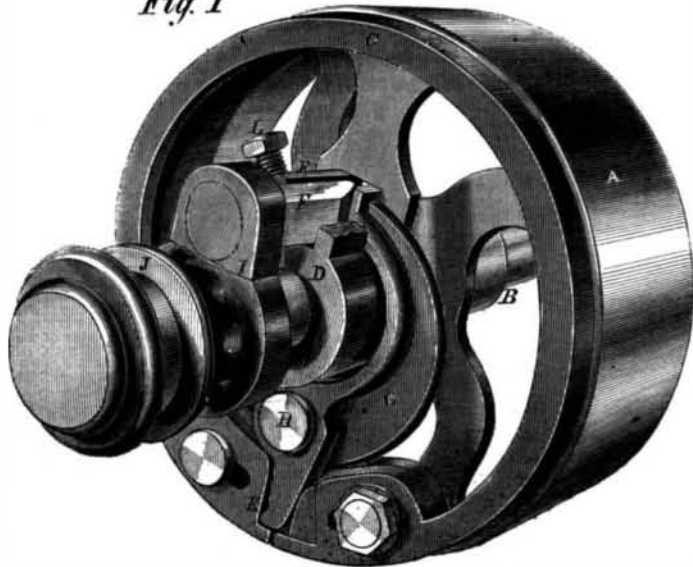
Improved Friction Pulley.

The old-fashioned clutch coupling used in most machine-shops is one of the most annoying and inconvenient attachments that could have been devised for the purpose. It is simple in its construction, but noisy, violent in its operation and not at all reliable. Sometimes the revolving dogs fail to catch the spurs on the fixed pulley when the bar is thrown over, and the machine to be stopped runs longer than the operator wished, and in all likelihood spoils his work.

This improved friction pulley is open to none of the objections above mentioned, as it is simple in construction, noiseless in its operation (a very great point, by the way), and exceedingly efficient; these points everyone will concede who examines the accom-

panying engravings. The pulley, A, is loose on the working shaft, B, and is bored out slightly taper on the inner circumference of the rim; in this bored out portion, the wheel, C, fits. On the hub, D, of this wheel there are two short jaws, E, one of which is broken off in the engraving, which jaws carry a square bolt, F, between them; this bolt is slightly rounded on one end; the rounded portion bears against the end of a curved lever, G, which has its fulcrum at H. The

Fig. 1

**BURLEIGH'S FRICTION PULLEY.**

for sizes over 20 inches diameter, 8 inch face is no doubt much cheaper; it will also save the wear and side thrust in starting and stopping."

This friction pulley is the invention of Charles Burleigh, of Fitchburg, Mass.: it was patented on July 8, 1862, and has been assigned to the "Putnam Machine Company." For further information address E. C. Tainter, Worcester, Mass.

The Government Laboratory.

In Philadelphia there is a Government laboratory, at which are manufactured all the compounded preparations used in the entire armies of the United States. The work conducted there gives employment to about 225 hands, male and female. The manufacturing facilities provided here are a decided curiosity. The drugs are purchased in a crude state, and every specimen is tested by chemical analysis. The chemical and manufacturing apparatus, stills, &c., are all of the first order of excellence and completeness. So perfect are the resources of the laboratory that the glass stopper of the bottles are ground upon the premises, and the bandages for wounds are woven in the establishment upon spindles provided for the purpose.

The cellar is devoted to the storage and bottling of wines and liquors for medicinal purposes. Whisky, brandy and wines are the liquors employed. None but the best are procured. The last purchase of whisky was selected from twenty-three samples, of which the rest were rejected.

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The second floor is a vast pill manufactory, where huge masses of mixtures are divided into globules by the delicate manipulation of soldiers' wives, widows and children. Plasters are also made here by the thousand, and about ten thousand bandages per day

beside. The bandage-making apparatus is unique. There is nothing like it elsewhere in existence. This part of the establishment is exceedingly curious and interesting. It has saved the Government vast sums of money hitherto wasted, and gives to the physicians at all times remedial agents of reliable quality and standard.

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THE
Scientific American,
FOR 1864!

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