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A NEW BAND SAWMILL.

The annexed engraving illustrates a new band sawmill patented and manufactured by the Cordesman and Egan Company, of Cincinnati, Ohio.

The cut shows the mill in operation, and the manufacturers claim for it advantages and conveniences not possessed by other saw mills for cutting good lumber from logs 6 feet in diameter and less, and for speed and durability they claim it to be equal to most circular sawmills in use, while the saving of the timber is very much greater. This band sawmill is not an experiment, but, according to the testimonials of a number of large lumber sawing concerns, it produces good work and is satisfactory in its results. Any person who is used to operating a small band saw can with little practice run the band sawmill. We briefly extract from the manufacturers' own description.

The new band sawmill, they state, is designed specially for the cutting of all kinds of lumber, both hard and soft, and the advantages claimed for it are economy in cutting large logs and good lumber, such as wide poplar, walnut, ash, oak, cedar, pine, etc., and for cutting thin lumber for special purposes, say a quarter of an inch, three-eighths of an inch, five-eighths of an inch, three-fourths of an inch, and one inch, it possesses many advantages not obtainable by other machines.

The blade used is about 18 or 19 gauge, so that the kerf taken out is scant one-sixteenth of an inch, so that there is a great saving in material over the production by the ordinary mill with top saw, and the lumber is left much smoother, thus requiring a much lighter cut in dressing.

By reference to the engraving it will be seen that the base is constructed solid and heavy, and carries the main column, the gear and feed shafts, as well also as the lower boxes and shafts.

The column is constructed of tapering shape, and is fitted to the base on a planed surface, which obviates the use of all bracing, even when the wheel revolves at a speed of four hundred or more revolutions a minute. The axes are of 4-inch steel and run in self-oiling boxes. The wheels are 78 inches in diameter and made of glued up hard wood. The feed is a friction disk, and can be changed instantly from 0 to 100 feet lineal per minute, and the return of the carriage may be 300 feet if desired. All adjustment in the machine can be made from the working side, and each complete machine is provided with patent head blocks, carriage and trucks, and rolls, one Perin blade six inches wide, with wrenches, etc.

A large number of these band sawmills are in use, and persons desiring to know more of their capabilities for good work can obtain the names of the users or other information by addressing the manufacturers, Cordesman and Egan Company, 209 to 229 West Front Street, Cincinnati, Ohio.

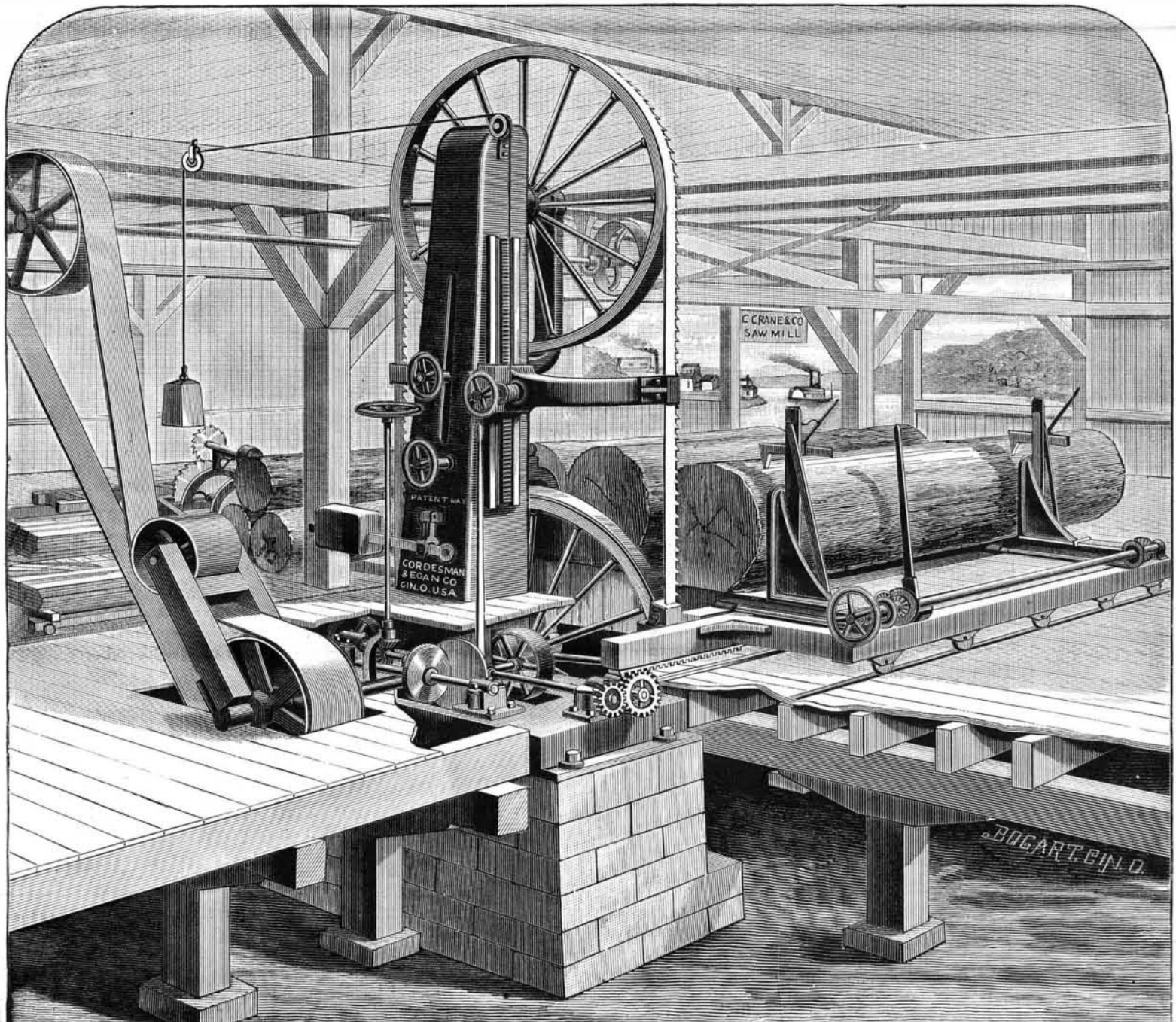
Electrical Storage Batteries.

At the recent meeting of the British Association, in the Mechanical Science Section, Mr. A. Reckenbaum read a paper on "Electric Launches," in which he gave a description of the launch Electricity, which made her first trip in September, 1882. She is 25 feet long, with 5 feet beam, and draws 21 inches forward and 30 inches aft. Her speed is 8.3 miles per hour with ten passengers on board. Forty-five Sellon-Volckmann accumulators supplied the current to two Siemens dynamos. A Collis-Browne propeller of 20 inches diameter and 3 feet pitch was employed. The speed of the screw was reduced to 350 revolutions, while the motors revolved at 950 revolutions per minute. In later experiments the dynamos were replaced by one D. Siemens machine,

which was directly connected to the screw shaft. More recently Messrs. Yarrow & Co., in conjunction with the Electrical Power Storage Company, fitted up an electrical launch destined for the Vienna Exhibition. The boat was 40 feet long, with 6 feet beam, and could carry forty passengers. The motor was a Siemens machine, which developed seven horse power. During the trial the speed of the boat, which was over eight miles, could be varied by a communicator which threw more or less cells in operation.

Sir W. Siemens said from his knowledge of the behavior of these launches, they promised excellent results. The question was, What was the secondary battery going to do for us? Was it going to last, or was it a perishable institution? In order to test the question quickly, he put down secondary batteries in his own house last autumn. He charged them by means of a very small half horse power engine, and the result so far had been very satisfactory. He had lighted his house by the small engine with the aid of the secondary battery with great effect, using forty incandescent lamps from half past seven in the evening until one or two o'clock. He started his engine at eight o'clock in the morning, and in the evening he had a sufficient accumulation of energy in the battery to last the length of time it was required. In the case of the launch, the machine could not be taken with it, and the battery would occasionally have to be charged. Therefore he would limit the application of the electric power to navigation to short stages. The cost of the use of steam power and electric storage would be about equal; but the latter would give advantages in weight and space.

FRESNO County, Cal., is making a canal 100 feet wide from King's River to irrigate 30,000,000 acres of dry and worthless desert.



A NEW LOG BAND SAWMILL.