Griffiths, of Woodstock, has been accepted, at $800.

AMHERSTBURG, ONT. — Twenty-four tenders were received for grading the extension of the Lake Erie and Detroit River Railway from Ridgetown to Dutton. Contracts have been awarded as follows: First section, Dewhirst & Boggs, of South Woodslee; second section, Dart & Hamilton, of Ridgetown; third section, H. Cilhooly, of Buxton; fourth section, James Wellwood, of Merlin.

FREDERICTON, N. B.—The Department of Public Works have let the following contracts: For repairing North Forks bridge, parish of Douglas, York Co., to Lewis E. Brewer; for repairing Hay's mill bridge at Millville, York, to Wm. O. Johnson; for repairing Murray bridge, parish of Kingsclear, York, to A. E. Cliff; for rebuilding Long's Creek bridge, parish of Johnston, Queens, to John D. McLaughlin.

WINNIPEG, MAN.—The tender of Kelly Bros. has been accepted for addition to the Deaf and Dumb Institute. — The School Board have accepted the following tenders for erection of office building: Brick and stone work, Geo. Alsip, $2,800; carpenter work, D. Bruce & Co., $2,100; plastering, Geo. Alsip, $420; painting and glazing, Crawford & Young, $365; tin and galvanized iron work, Douglas Bros., $213; electric lights, E. Harrison, $98.

MODELS IN PLASTER OF PARIS.

The Illustrated Carpenter and Builder says: Take any quantity of finely-powdered gypsum (which is the name of plaster of paris in its raw state) and put it into an iron pan or boiler, which may be filled to within a few inches of the brim. Set the boiler upon a good fire, and stir the powder with a rake to heat it uniformly. When the powder becomes hot bubbles will rise to its surface, and it will have all the appearance of a fluid. The boiling must be continued until the bubbling ceases. The operation is then finished, and nothing more is required than to cover the boiler with a lid, and to allow the plaster to cool gradually in a warm place by removing it to one side of the fire or causing the fire to die out. The plaster thus prepared may be depended on, when mixed with water to the consistency of cream, and poured upon any figure; it hardens in a few minutes and takes a very sharp impression; by gradual drying it afterwards acquires almost the hardness of stone. Drying in an oven, although necessary for some purposes, inevitably renders all plaster tender. When plaster is not used immediately after it is made it should be kept in air tight casks, for it may be regarded as a species of quicklime, and the longer it is suffered to absorb the moisture, which it greedily takes from the atmosphere, the more it is injured. When the original subject or model is a bust or any complex figure of that nature, after it has been well oiled, the plaster is mixed up to the consistency of paste and immediately applied to every part of it with the hands. After it is dry it is divided by a very thin-bladed knife, and taken off in such portions as will separate perfectly from the original. The adjoining parts are marked, so that they can be easily put together again in their proper order. When it has been dried and oiled, and is completely put together again, plaster is poured within it by means of a small aperture, and the mould is turned in every direction, so that the plaster may adhere to every part of its interior, and when a sufficient quantity of plaster is poured in to produce the strength required in the cast, the remainder is left hollow, both for the sake of lightness and to save expense in plaster. When the cast is dry it is extracted by separating the pieces of which the mould is composed, and it is finished where it appears to require it with chisels or any similar tools. To varnish the models brush over with skimmed milk till it will imbibe no more, which, after it is dry, will, by gently rubbing, appear like polished marble.

PAPER ROPES.

Paper ropes, says an exchange, are being manufactured which are highly recommended for power transmission. The paper rope is of a light fawn color, fairly smooth to the touch, slightly lighter than cotton rope, and is very pliable, even to 1½ in. diameter. These ropes are manufactured similar to other ropes, and are made of three strands each, each strand being made up of a number of smaller strands. The rope is treated with boiled oil, making it practically waterproof. Its tensile strength is not as great as cotton rope, but it is said not to wear internally as do these other ropes. The rope can be spliced like any other rope, though the makers are introducing a metal coupling to do away with splicing, and this is said to both make a better connection for power transmission and also to effect a great saving in time as compared with splicing. It is said that tests have been made with various kinds of rope. In all cases the pull had a tendency to decrease when the experiment had been proceeding for a minute or so. With the paper rope this was less marked than with others and a point was soon reached when the pull remained, as nearly as could be told, constant. There was a slight vibration of the spring gauge pointer, which made readings to a pound difficult. The ropes were examined after the test. The cotton and hemp showed signs of fraying; the paper was simply polished. If similar results can be obtained in practical works there seems to be a field for this new rope.

A MONSTER CRANE.

A gigantic crane, of a type that will soon come into use in building if the craze for large structures is carried further, is in use at Paris. The great 25 ton crane which is mounted in one of the main dynamo rooms of the Paris Exposition presents many points of interest. It is of great height, being twenty metres from the ground to the highest point; it takes the form of an immense tower, formed of iron beams and braced by horizontal and oblique crosspieces, it rolls upon a track laid along the whole length of the building, and is used to mount the large dynamos and engines of this section. The track is six metres wide, and is made up of two rails placed close together, leaving a space between the flanges, which is occupied by a series of short cross-pieces which constitute a rack. With this the pinion of the crane engages, the transmission being made by a stout shaft which leads from a motor placed midway up the crane. The middle space underneath the tower is large enough to afford a wide passage-way, and the railroad track which has been laid to bring in the pieces of the machines passes under it, leaving still a considerable space. The tower supports a platform at the top, whose height is twelve and a half metres from the ground. On this is a circular crown of rollers arranged to carry the horizontal beam of the crane, which may thus take a circular motion around a pin in the centre. Upon the centre of this beam, which is constructed of trelliswork, are placed the motors, which separate the carriage by chains which pass over a series of pulleys.

The length of the horizontal beam is twenty-five metres and the carriage mounted upon it will describe a radius of