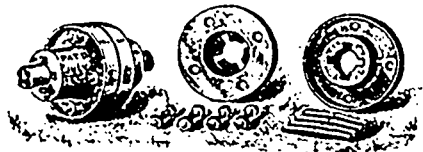


THE NICHOLSON PATENT FLANGED FACE COMPRESSION SHAFT COUPLING.

The makers of this coupling claim for it that in design, construction and general operation, it more completely meets the requirements of a first-class shaft coupling than any other on the market. In appearance it resembles the ordinary flanged face coupling. The two half castings are bored tapering, and have flanges on rim to cover bolt heads and nuts. The outer faces of hubs are closed almost to shaft by a rib or projection, through which flots are cut to space the jaws a uniform distance apart and hold them in position while coupling is being fixed on the shaft. The steel jaws have double taper, turned to fit bores of castings, and are concaved on their inner



faces a trifle less than the radius of shaft, which makes the grip positive when flanges are drawn up by the bolts. The couplings are fitted so that flanges stand from $\frac{3}{8}$ to $\frac{3}{4}$ of an inch apart when drawn tight with the bolts, thus enabling a trifle larger or smaller size of shaft than gauge to be coupled. Owing to this feature extra couplings may be carried in stock, so that in case of an accident they can be immediately applied to the shafts that have been broken and twisted off, or another shaft may, it is stated, be coupled on without the necessity of key seating the old shaft or making exact measurements to ensure a perfectly tight fit. The Nicholson patent flanged shaft coupling is placed on the market by the Fairbanks Co., Montreal, and is, we are told, being installed by the company in place of less up-to-date appliances.

CANADIAN PATENTS.

The following patents of interest to engineers were issued in January:

- No. 62,176.—Electric arc lamp; The British Blahnick Arc Light Co., Westminster, London, England.
- No. 62,177.—Rail joint for electric railways; The firm of Ausfuhrungenfur Eisenbahn, Oberban, Abtheilung "Stossfangschienne," Seigm, Eppenstein, of 45 Wilhelmstrasse, Berlin, Germany.
- No. 62,181.—Acetylene gas generator; Isidore Therien, Quebec, Que.
- No. 62,186.—Acetylene gas generator; Francis Xavier Nadon, Maniwake, Que.
- No. 62,194.—Acetylene gas generator; E. J. Dolan, Philadelphia, Pa.
- Nos. 62,199, 62,200, 62,201.—Motor; Zdzislav Maevsky, St. Petersburg, Russia.
- No. 62,203.—Acetylene gas generator; J. W. Scarth, Pudsley, York, England.
- No. 62,207.—Turbine; Jos. Chew, Orillia, Ont.
- No. 62,214.—Telephone transmitter; F. A. Ray, Boston.
- No. 62,217.—Railway rail joint; T. C. H. Gray, Gray Bridge, Mass.
- No. 62,219.—Trolley connection for canal boats; F. J. Shewring, Toronto.
- No. 62,224.—Solenoid blow-out for displacing, dispersing, or extinguishing, formed in breaking electric circuits; S. H. Short, Cleveland, O.
- No. 62,243.—Drill clutch; W. L. Hirlinger, Luzerne, Penn.
- No. 62,249.—Device for moving dredging machines; J. W. Pike, Vancouver, B.C.
- No. 62,262.—Insulator; E. Renault, Florida, U.S.A.
- No. 62,264.—Electric arc lamp; Thos Spencer, Philadelphia, Pennsylvania.
- No. 62,269.—Smokeless furnace; Ed. Gessner, No. 60 Krona, Brunn, Austria.
- No. 62,278.—Railway tie and clamp; Chas. A. Cole, New York.
- No. 62,281.—Acetylene gas making machine; A. Holland, Ottawa, Ont.
- No. 62,282.—Acetylene gas lamp; John Zimmerman, Chicago, Ill.

- No. 62,283.—Acetylene gas machine; P. H. Mace, Paris, France.
- No. 62,293.—Track clearer; James C. Cameron, Montreal.
- No. 62,294.—Acetylene gas generator apparatus; Jean A. Plantin, Ottawa, Ont.
- No. 62,312.—Motor vehicle; The Prclo Motor Syndicate, Butolph House, Eastcheap, London, England.
- No. 62,336.—Electric engine; Marcy Lelland Whitfield, Chicago, Ill.
- No. 62,339.—Steel manufacture; Thos. J. Heskett, 50 North Terrace, Adelaide, South Australia.
- No. 62,341.—Steam boiler furnace; Geo. N. Robinson, Brooklyn, N.Y.
- No. 62,356.—Flat-railed railway; H. L. Stillman, Charlestown, Rhode Island.
- No. 62,359.—Car coupler; Philip Hien, Chicago, Ill.
- No. 62,361.—Brake shoe; A. J. Allen, Chicago, Ill.
- No. 62,377.—Telephone; R. W. Wallace, 21 De Vere Gardens, Kensington, London, England.
- No. 62,378.—Furnace grate; Henry Truesdell, Toronto.
- No. 62,385.—Heater and radiator; Chas. Ellingsen, Ashby, Minn., U.S.A.
- No. 62,389.—Instrument for determining the amount of elongation and compression of railway rails under moving trains; P. H. Dudley, New York, N.Y.
- No. 62,390.—Electric track circuit rail joint; Wm. H. Talley, Waco, Texas.
- No. 62,392.—Heater; John A. Markle, Birtle, Man.
- No. 62,410.—Compound steam engine; Jos. Hardell, Stratford, Ont.
- No. 62,416.—Car pushing device; Wm. L. Joy, Toronto.
- No. 62,424.—Boiler; Calixte Cauchene, St. Gabriel de Brandon, Que.
- No. 62,440.—Telephone number and address: Annunciator; Wm. J. Walsh, Hamilton, Ont.
- No. 62,447.—Steam boiler and furnace; Wm. Hopkins, Dubuque, Iowa.
- No. 62,449.—Electric railway truck; Geo. J. Capewell, Hartford, Conn.
- No. 62,450.—Gas generating process; Samuel H. Wood, Wilmette, Ill.
- No. 62,451.—Steam boiler; David Fitzgibbons, Oswego, N.Y.
- No. 62,453.—Steam boiler; N. F. Anderson, Hardid, Ill.
- No. 62,455.—Steam boiler; R. Hutchinson, Somerville, Mass.
- No. 62,456.—Steam boiler; Geo. H. Watson, Chicago, Ill.
- No. 62,457.—Boiler; R. W. Innes, Omaha, Neb.
- No. 62,458.—Steam generator; Henry Hening, Paterson, New Jersey.
- No. 62,463.—Acetylene gas lamp; Geo. D. Pearson, Montreal, Quebec.
- No. 62,464.—Acetylene generator; F. Cortez Wilson, Chicago, Ill.
- No. 62,466.—Process of, and apparatus for, the manufacture of metallic carbides.

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Village of Hintonburgh.

TENDERS FOR WATERWORKS

Tenders for constructing a system of waterworks for the Village of Hintonburgh, sealed, and endorsed "Tenders for Waterworks," will be received until noon of Saturday, 15th April, 1899, addressed to W. A. Mason, Esq., Village Clerk, Hintonburgh, Ontario.

Each tender must be accompanied with an accepted bank cheque for an amount equal to five per cent of the amount tendered, and made payable to the order of W. A. Mason, Treasurer of the Corporation, which cheque will be forfeited if the contractor declines to enter into a contract when called upon to do so.

The Corporation reserves the right to reject any or all tenders.

Plans and specifications can be seen, and printed specifications and forms of tender obtained at the office of the Clerk, Town Hall, Hintonburgh.

Dated at Hintonburgh this 23rd day of March, 1899.

(Signed) D. H. McLEAN, Reeve.

(Signed) CHARLES H. KEEFER, Consulting Engineer, Ottawa.