

radius of fifty miles, and where they are not of the same size and style, should not interchangeable couplings be provided? Chief W. C. Davoe, jr., Fall River, Mass.; John Stagg, Paterson, N.J.; W. G. Fuller, Richmond, Va.

Is it not the duty of cities and towns, provided with a system of waterworks, to place in the fire stations water gauges, that the fire department may at all times become familiar with the state of the water pressure? Chiefs T. T. Clewes, Jamestown, N.Y.; Geo. Kofflack, Mansfield, O., ex Chief F. E. Perkins, Burlington, Vt.; D. J. Swenie, Chicago; A. C. Leshure, Springfield, and J. R. Canterbury, Minneapolis

The proper location of gas-meters: Chief J. W. Dickenson, Cleveland, O.; Supt. Samuel Abbott, jr., Boston, Mass.; Chief F. P. Kroty, Lafayette, Ind.

The service and economy of fire patrols and salvage corps: Chief John C. Spencer, Jonesville, Wis.

Should not the size of hoses, nozzles, hydrants, and engines be increased to meet modern demand? Chief Jerry, Carleton, Sioux Falls, S.W.; J. A. Archibald, Cincinnati, O.; Robert Kiersted, Newark, N.J.

How best to handle brush and prairie fires threatening suburbs or residences beyond the reach of water: Chiefs A. H. Cameron, Butte, Montana, Robt. Willow, Lieut.-Col. Neb, Frank Zweirt, Yorktown, S.D.

How should buildings be constructed with a view to the least expansion by excessive heat? Chief Geo. C. Hale, Kansas City, Mo.

What tests should be required from a water company for renewal of contracts? Chief C. E. Bundel, Sharon, Pa.

At the request of Ald. Stevenson and Chief Benoit, of Montreal, Prof. J. T. Nicholson, on behalf of McGill University, will read a paper on "The best mode of setting steam fire engines."

Other "Outsiders" have consented to read papers on the following topics: "The modern fire department", "Theatre fire catastrophe", "The progress of electricity in municipalities", "Fire extinguishment in high buildings", Continuation of danger of electric wires", "Slow burning mill construction," and "Dynamo currents as applied to fire alarms."

The Patent Review.

- 45,004 Thomas D. Jones, Algernon, Ill., nut lock.
 45,005 Gustavus G. Weigand, Des Moines, Iowa, ribbon needle.
 45,007 Ansel W. Fisher, Charlotte, Maine, thill coupler.
 45,008 Nicolas Wagener, Baltimore, Maryland, propeller wheel.
 45,010 Morgan Williams, Aspen, Colorado, wrench.
 45,012 John Tyler Hicks, Boston, Mass., cash register and account check.
 45,013 Anson K. Cross, Boston, Mass., method of correcting drawings.
 45,017 Frank F. Gobey, Winooski, Vermont, sharpener for calks.
 45,018 Carl Spiel, Cannstatt, Wurtemberg, Germany, hydrocarbon engine.
 45,019 Birney C. Batcheller, Philadelphia, Penn., process of and apparatus for drying brewers' grain.
 45,021 Theodore Guillaume, Mulheim-on-the-Rhine, Germany, electric cable.
 45,023 James D. Craig, Chicago, Ill., combination lock.
 45,025 Miles L. Clinton, Ithaca, N.Y., steam boiler.
 45,030 Charles R. Schmidt, Baltimore, Maryland, valve.
 45,031 Oliver H. Hicks, Chicago, Ill., electric device for operating doors.
 45,032 Pierre A. Moreau, Meung-sur-Loire, Loiret, France, method of making marble.
 45,033 Wm. A. Rife, Waynesboro, Virginia, hydraulic ram.

- 45,036 Albert Richard Whittall, Montreal, Quebec, Can.
 45,037 Samuel W. Rowell, Beaver Dam, Wis., grain drill.
 45,038 Lawrence George McKam, Toronto, Ont., method of refining oil.

GERMAN PATENTS.

Compiled at the patent and technical office of Brockhues & Co., Cologne, for THE CANADIAN ENGINEER. Information referring to these lists given free of cost to our subscribers.

Apparatus for cleaning steam-water outlet-pipes; G. Kessler and Jacob Rein, Hochel on the Maine.

Apparatus for preventing trains going at a very high speed from leaving the rails; F. Engel-Gros, Bâle.

Connection of rail-joints for portable field railways; Arthur Koppel, Berlin.

Electricity meter; Fred. Bentler, Cologne.

Automatic laterally detachable coupling for railway vehicles; Mihail Alexandrescu, Berlin

Multiple switch for telephones; Georg Ritter, Stuttgart.

Means for rendering impervious the joints in masonry allowing water to penetrate; Karl Rummle, Weldshuh.

Fire-tube bent at top for steam boilers; Gustav Streitz, Berlin.

Process for ornamenting metal objects with a polished and wear-resisting coating of aluminum; G. Menrer, Dresden.

Manufacture of carbons for arc lights; Dr. Rickmann and Rappe, Kalk, near Cologne.

PATENTS procured for Canada, United States, Great Britain, etc.
Fetherstonhaugh & Co., Patent Barristers, Solicitors and Experts, Bank of Commerce Building, King Street West, Toronto.

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