

THE TYPE OF CANAL.

Washington, Feb. 16.—The entire question of the type of canal that should be adopted in the construction of the Panama canal was before the senate today, Senator Kittredge, chairman of the committee on inter-oceanic canals; Senator Foraker, and Senator Teller are declaring that they believed a grave mistake had been made in adopting the lock project. The discussion grew out of a report by Mr. Kittredge on the bill increasing the limit of a cost for the canal to \$500,000,000, and authorizing the secretary of the treasury to issue bonds to that amount. He said that this committee had decided that the measures should be considered by the finance committee, and he reported it back with that recommendation. In making the report Mr. Kittredge took occasion to say that the canal committee disapproved of the proposed issue of bonds, and he read a statement of the expenditures on account of the canal showing that to date they have been \$170,964,468.

Senator Kittredge said that while the engineers of the canal zone had originally placed the cost of a lock canal at \$139,000,000, they had now increased their estimates to \$400,000,000, whereas, it had been estimated that a sea level canal could have been built for \$247,000,000. In response to a question from Senator Foraker, he expressed the opinion that the lock canal had not progressed so far that it would not now be possible to adopt the sea level type. Mr. Foraker agreed with Mr. Kittredge that the sea-level waterway would have been preferable from an economic standpoint. Senator Teller also expressed the opinion that a sea-level canal could be constructed more cheaply than a

lock canal, and he added that it would be in far less danger of destruction.

Referring to reports that Mr. Taft had "ordered" the widening of the Culebra cut, Mr. Teller, in response to questions by Mr. Money, said he did not suppose Mr. Taft actually "ordered" the change, but that he had recommended it.

The regular order was demanded and without disposing of the canal question, the senate passed to other subjects.

SOUTHERN COMMERCIAL CONGRESS.

Washington, Feb. 16.—Grosvenor Dawe, managing director of the Southern Commercial Congress, arrived here today from Montgomery, Ala., and opened offices. The local committee on cooperation is now practically complete and includes the following:

Oscar S. Straus, secretary of commerce and labor; Luke E. Wright, secretary of war; W. W. Finley, president of the Southern railway; Gifford Pinchot, chief forester; Charles H. Treat, treasurer of the United States.

Discussing the plans of the congress today, Mr. Dawe said:

"The work that will be undertaken by the congress will be an elastic effort and as many lines of endeavor set in motion as the funds will permit. There are two or three things that it will not do. It will not duplicate a single line of effort at present being carried out by the great departments of the government. It will supplement their work since no department can properly spend any effort in the endeavor to develop any one section."

"Furthermore the congress will not endeavor to build up the South at the expense of the North and West; it will merely endeavor to bring the South to the point of development that shall place it on a

parity with the North and West.

"For the endowment of the work, the Southern Commercial Congress will need at least \$1,000,000. This is a small amount when contrasted with the results that can be brought to the South, granting that the South approximates the North in development in the next few years there is not a county in the South and not a city but will be enhanced in value many times the \$1,000,000 required to maintain perpetual work. Every property holder, every business man has a cash interest in this project."

ILLINOIS TURPENTINE BILL.

(Senate Bill No. 136, by Dellenbeck.)

A bill for an act in relation to the adulteration and deception in the manufacture and sale of spirits of turpentine and providing penalties for violation thereof.

Section 1. Be it enacted by the people of the State of Illinois, represented in the general assembly: That no person, firm or corporation shall manufacture, mix for sale, sell or offer for sale, under the name of spirits of turpentine, any article which is not wholly distilled from rosin, turpentine gum or scrape from pine trees, and unmixed and unadulterated with oil, benzine or any other substance of any kind whatever, unless the package containing same shall be stenciled or marked, with letters not less than two inches high, "adulterated spirits of turpentine."

Sec. 2. Any person, firm or corporation violating the provisions of this act shall be guilty of a misdemeanor, punishable by a fine of not less than \$50 or more than \$500, or by imprisonment for not more than one year, or by both such fine and imprisonment.—Paint, Oil and Drug Review.

THE EFFECT OF BOXING OR BLEEDING SOUTHERN PINES.

"Bleeding" pine trees for their resin, to which chiefly longleaf (*Pinus palustris*) and Cuban pine (*Pinus heterophylla*) are subjected, has generally been regarded as injurious to the timber. It has been claimed that both durability and strength of timber are impaired by this process, and in the specifications of many architects and large consumers, such as railway companies, "bled" timber is excluded.

The utilization of resin is one of the leading industries of the South, and since the process affects several millions of dollars worth of timber every year, special investigations, involving mechanical tests and the physical and chemical analyses of the wood of bled and unbled trees from the same locality, have been carried on by the United States government through the Forest Service.

Results prove conclusively, first, that bled timber is as strong as unbled, if of the same weight; second, that the weight and shrinkage of the heartwood is not affected by bleeding; third, that the durability of the heartwood is not affected by bleeding, since the resin comes from sapwood only.

The amount of resin in the wood varies greatly, and trees growing side by side differ within very wide limits. Sapwood contains but little resin—one to four percent—even in those trees in which the heartwood contains abundance. In the heartwood the resin forms from 5 to 24 per cent of the dry weight (of which about one-sixth is turpentine), and cannot be removed by bleeding, so that its quantity remains unaffected by the process.

Bled timber, then, the tests have shown, is as useful for all purposes as unbled.

Industrial Record Buyers' Directory.

ACCOUNTANTS.

T. G. Hutchinson, Jacksonville, Fla.
Walter Mucklow, Jacksonville, Fla.

AXES.

J. D. Weed & Co., Savannah, Ga.
BANKS.

Commercial Bank, Jacksonville, Fla.

BEER—WHOLESALE.

Chas. Blum & Co., Jacksonville, Fla.

BARREL STAVES.

East Coast Lumber Co., Watertown, Florida.

BOXES AND CRATES.

Cummer Lumber Co., Jacksonville, Fla.

CLOTHING.

Standard Clothing Co., Jacksonville, Fla.

COPPER SMITHS.

McMillan Brothers, Jacksonville, Savannah and Mobile.

Baker, M. A., Brunswick, Ga., and Pensacola, Fla.

COOPERAGE.

Atlantic Cooperage Co., Jacksonville, Fla.

DRUGS.

Wm. D. Jones, Jacksonville, Fla.

ENGINES.

Schofield's Sons Co., J. S., Macon, Ga.
Lombard Iron Works and Supply Co., Augusta, Ga.

FOUNDRIES.

Schofield's Sons Co., J. S., Macon, Ga.
Lombard Iron Works and Supply Co., Augusta, Ga.

FUNERAL DIRECTORS.

The Chas. A. Clark Co., Jacksonville, Fla.

GAS.

Jacksonville Gas Co., Jacksonville, Fla.

GENTS' FURNISHERS.

Standard Clothing Co., Jacksonville, Fla.

Stuart-Bernstein Co., Jacksonville, Fla.

GROCERS—WHOLESALE.

Williams, J. P., Co., Savannah, Ga.

Young Co., John R., Savannah, Ga.

HATS.

Stuart-Bernstein Co., Jacksonville, Fla.

HARDWARE.

Weed & Co., J. D., Savannah, Ga.

Standard Clothing Co., Jacksonville, Fla.

HOOP IRON.

J. D. Weed & Co., Savannah, Ga.

IRON WORKS.

Schofield's Sons Co., J. S., Macon, Ga.

JEWELERS.

R. J. Riles Co., Jacksonville, Fla.

Hess & Slager, Jacksonville, Fla.

LUMBER.

East Coast Lumber Co., Watertown, Florida.

LIQUORS.

Blum & Co., Chas., Jacksonville, Fla.

MEDICINES.

Spencer Medicine Co., Chattanooga, Tenn.

MACHINE WORKS.

Schofield's Sons Co., J. S., Macon, Ga.

Lombard Iron Works, Augusta, Ga.

MATERIALS FOR TURPENTINE PROCESS.

Schofield's Sons Co., J. S., Macon, Ga.

METAL WORKERS.

McMillan Brothers, Jacksonville, Savannah and Mobile.

Baker, M. A., Brunswick, Ga., and Pensacola, Fla.

MILL SUPPLIES.

Schofield's Sons Co., J. S., Macon, Ga.

Weed & Co., J. D., Savannah, Ga.

Lombard Iron Works & Supply Co., Augusta, Ga.

NAVAL STORES.

Peninsular Naval Stores Co., Jacksonville and Tampa, Fla.

Barnes & Jessup Co., Jacksonville, Fla.

Consolidated Naval Stores Co., Jacksonville, Fla.

West-Flynn-Harris Co., Jacksonville, Fla.

Williams Co., J. P., Savannah, Ga.

Young Co., John R., Savannah, Ga.

Southern States Naval Stores Co., Savannah, Ga.

PHOSPHATE MACHINERY.

Lombard Iron Works & Supply Co.,

Augusta, Ga.

PUMPS.

Schofield's Sons Co., J. S., Macon, Ga.

RAILROADS.

Atlantic Coast Line.

NURSERIES.

The Barber-Frink Co., Macclenny, Fla.

SAWMILLS.

Lombard Iron Works and Supply Co., Augusta, Ga.

SHIP YARDS.

Cummer Lumber Co., Jacksonville, Fla.

SHOES—WHOLESALE.

Jos. Rosenheim Shoe Co., Savannah, Ga.

SHOES—RETAIL.

Stuart-Bernstein Co., Jacksonville, Fla.

TANKS.

G. M. Davis & Sons, Palatka, Fla.

Schofield's Sons Co., J. S., Macon, Ga.

TURPENTINE BARRELS.

Atlantic Cooperage Co., Jacksonville, Fla.

TURPENTINE STILLS.

Baker, M. A., Brunswick, Ga., and Pensacola, Fla.

McMillan Brothers, Jacksonville, Savannah and Mobile.

TIMBER LANDS.

J. H. Livingston & Sons, Ocala, Fla.

TURPENTINE TOOLS.

Council Tool Co., Jacksonville, Fla.

J. D. Weed & Co., Savannah, Ga.

WATCHES.

Greenleaf & Crosby Co., Jacksonville, Fla.

Hess & Slager, Jacksonville, Fla.

R. J. Riles Co., Jacksonville, Fla.

YELLOW PINE LUMBER.

Cummer Lumber Co., Jacksonville, Fla.

East Coast Lumber Co., Watertown, Fla.