

# The Frisco-Man



February

1920

**BETTER**

Union



**BUILT**

Made

# OVERALLS AND WORK SHIRTS

For FIT — For COMFORT — For WASHING — For WEAR  
Are in a Class by Themselves

## A MAN'S GARMENT FOR A MAN'S WORK

Guaranteed to Fit Better, to Wash Better and Wear Longer.

### Your Money Back if they Don't

They cost more to make because we use better Materials.

Why pay the same price for an inferior garment?

*Insist on Your Dealer Supplying You With BETTER-BUILTS. If He  
Will Not Supply You, Write Direct to Factory.*

For Sale by

E. F. Eggiman Merc. Co.  
Chaffee, Mo.

Galloway & Mansfield  
Monett, Mo.

I. Kohn  
Hayti, Mo.

Reed-Smith Clothing Co.  
Springfield, Mo.

Cofer Clothing Co.  
Cape Girardeau, Mo.

Chas. Ferguson  
Willow Springs, Mo.

Hickman-White Store Co.  
Puxico, Mo.

Standard Clothing Co.  
St. Louis, Mo.

Logan-Jones Dry Goods Co.  
Kansas City, Mo.

## Textile Products Manufacturing Co.

Makers

SAINT LOUIS, MISSOURI



# ONE MOMENT PLEASE!



**M**ANY of your friends and associates have followed our suggestion to buy Accident and Health Insurance from us and those who have suffered disability have congratulated themselves many times upon the benefits received from having "THE TRAVELERS" protection.

When you buy from us you get The Best. There is no time like the present. Make your application now.

*The Travelers Insurance Company*  
HARTFORD, CONNECTICUT

### *The Clothes You Wear—*

the home you live in—the food you eat—the pleasures you enjoy—the money you save—are dependent solely upon your INCOME.

### *Accident and Disease*

are the destroyers of INCOME. Why provide insurance against money loss if your home should burn—if at the same time you fail to PROTECT your most valuable asset—your INCOME.

### *Thousands of Railroad Men*

located on every system in the United States are daily thanking the CONTINENTAL for having PROTECTED THEIR INCOMES.

## **CONTINENTAL CASUALTY COMPANY**

(The Railroad Man's Company)

**H. G. B. ALEXANDER, President**

FILL OUT AND MAIL TODAY

**CONTINENTAL CASUALTY COMPANY**  
910 Michigan Ave., Chicago

Please send me information in regard to your *Health and Accident Insurance.*

Age \_\_\_\_\_

Address \_\_\_\_\_

Occupation \_\_\_\_\_

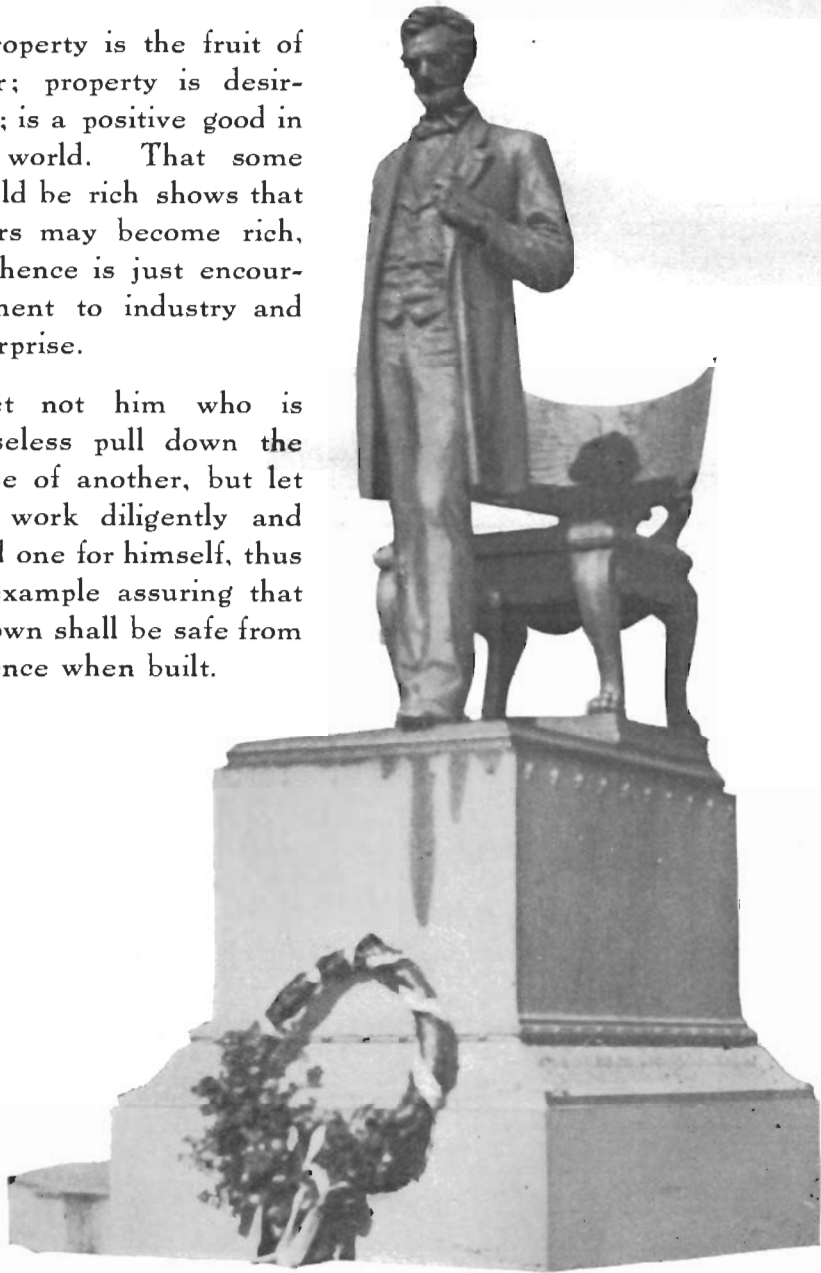
Frisco. \_\_\_\_\_

## *Lincoln's Message*

Extract from address of Abraham Lincoln to the Workmen's Association in 1864.

Property is the fruit of labor; property is desirable; is a positive good in the world. That some should be rich shows that others may become rich, and hence is just encouragement to industry and enterprise.

Let not him who is houseless pull down the house of another, but let him work diligently and build one for himself, thus by example assuring that his own shall be safe from violence when built.



# The Frisco-Man

Frisco Building, Saint Louis

## Chemical Treatment of Feed Water

BY R. A. WINSER,  
Water Engineer, Springfield.

**A**N article in the Frisco-Man, Christmas number, 1919, gave a copy of an address by Robert Collett as delivered before the St. Louis Railway Club, November 14th, entitled "Fuel Economy and Locomotive Operation." This article gave several essentials bearing on the subject and among those presented was one on Feed Water. Figures were given showing the remarkable results that have been accomplished on one road by means of improvement of feed water, said improvements having been brought about by intelligent treatment. This brings the proposition down to what is being done on this road. Water treatment is not a new subject, but can be put in this class on the Frisco. During the summer of 1918 the installation of water treating plants was started on the Southwestern Division and continued onto the Western and Northern Divisions and the work authorized is just now about completed.

The method of treatment on the Frisco is identical with the methods used on the road referred to by Mr. Collett and perhaps a short treatise on this treatment of feed waters will not be out of place at this time.

Water when it evaporates from the oceans, lakes, rivers, etc., and finally forms into clouds, is almost pure. When it falls to the earth in the form of snow or rain it dissolves various gases from the air and as it runs over the ground into lakes, rivers, etc.

(same also going into the ground and reappearing again as wells and springs), it dissolves many impurities such as organic and mineral matter with which it comes in contact; therefore, the nature of the dissolved solids or impurities will depend upon the character of the soil over or through which the water has passed.

Water, when it is pumped for use, will contain two classes of mineral salts, the incrusting and alkali salts. The fitness or unfitness for use in locomotive boilers is determined by the amount of these salts in the water.

The incrusting salts (total hardness) consists of the carbonates of lime and magnesia (temporary hardness) and sulphates of lime and magnesia (permanent hardness). The carbonate salts are precipitated either as a soft mud or a bulky scale on the flues and staybolts, according to the condition of the water in the boiler, when water is boiled at atmospheric pressure. The sulphate salts remain in solution when water is boiled at pressure below 60 pounds, but above this pressure it separates out and forms a hard scale on the flues and firebox sheets, the result of which is continued trouble from leaky flues, stay bolts and fireboxes, due to overheating of the metal.

The alkali salts is represented by the difference between the total dissolved solids and the total hardness and are the sulphates, chlorides, and