

Written by an Erie Brakeman

New Use for Pluto Water

Lady of the House—Did you find the ammonia?

Maggie at work on a window—Yes, here it is; but it's the first time you ever bought this brand.

Lady of the House—Why, Maggie, you used the Pluto water!

Maggie—Yes, but the windows are clean, aren't they?—It worked all right.

Anticipation

Pat—Them be fancy things we be doin' these days?

Mike—Indeed, Pat, so they be; a year ago we were pumpin' the hand-car; now it do be run by a motor. Afore long ivry man of the crew will be wearin' a buttonhole bokay.

"Oh See the Horse Kennels!"

First Lady Passenger on No. 3, westbound, near Goshen—"Oh Sister! See the horse kennels; there must be a race track around here."

Second Lady Passenger, rushing to the window—"They don't look like race horses.

(The kennels are the corrals for feeding horses pending shipment to Europe for War purposes. The race horses were mules.)

Was Shy on Vowels

The learned professor occupied a berth in a comfortable sleeping car and he was composed and happy until morning came. Then his brow harbored a frown when he heard the trainman call out Susquehanny, Elmiry, Cuby, Salamanky, and the rest of the stations ending in "a," always using the letter "y."

Finally he became exasperated and

when the trainman again offended he called him to him and said: "Why don't you pronounce the station correctly and not use the letter 'y' when it should be 'a'?"

The trainman, who was not as dense as he appeared, listened attentively and then replied: "The school that I attended was always shy on vowels."

Studying Eyetalian

Mike—They be tellin' me at the superintindint's office that Jim Farley has been appinted foreman of Section twinty-siven.

Pat—I knowed it widout bein' told fer I seen him readin' an Eyetalian book last night. Sure it's not like the good old days, Mike, when the Doyles, the Sullivans, the Moriaritys and the Mulcahys tamped the ties.

Hopeless.

There is in the employ of a Brooklyn woman an Irish cook who has managed to break nearly every variety of article that the household contains. The mistress' patience reached its limit recently when she discovered that the cook had broken the thermometer that hung in the dining-room.

"Well, well," sighed the lady of the house, in a resigned way, "you've managed to break even the thermometer, haven't you?"

Whereupon, in a tone equally resigned, the cook said: "Yis, mum; and now we'll have to take the weather just as it comes, won't we?"—*Argonaut.*

Only One Not Working

The lieutenant was instructing the squad in visional training.

"Tell me, Number One," he said, "how many men are there in that trench-digging party over there?"

"Thirty men and one officer," was the prompt reply.

"Quite right," observed the lieutenant, after a pause. "But how do you know one is an officer at this distance?"

"'Cos he's the only one not working, sir."
—*Tit-Bits.*

The Track of a Train

You can't tell which way a train has gone by its track.—*New York Herald.*

Dean of all Broadway Passenger Men

JAMES BUCKLEY! Who in the railroad world doesn't know him? Or, at least, who hasn't heard of him? Is there a man in the passenger department of any railroad that has mileage enough to include it in the official guide who hasn't some knowledge of "Jim" Buckley? If there is he has been in the railroad passenger business but a short time.

But even some of these thousands of railroad men who think they know "Jim" Buckley only think so. They know a few things—that he is figuratively the daddy of all the passenger men and the grand-daddy of many and maybe the great grand-daddy of a few score!

One thing most of them know, and that is that he is "the dean of all the Broadway passenger agents," and has been many, many years, and that wherever known he is respected and admired not only for his personal qualities but for his scrupulous business dealings and his superior knowledge and ripe judgment.

Now, because a man is a veteran is no good reason to imagine that he is an old man, because some men—one of whom is "Jim" Buckley—never grow old, except in wisdom. While he has been with the Erie from boyhood and has labored faithfully practically all of his life—to be exact, fifty-one years—his step is as firm and quick, his eye as clear, his voice as musical and his mental qualities as alert as they were when, as a boy, he entered the service.

What a story it would make if we could encompass in this sketch of a beloved fellow-worker, all his good deeds and good qualities, and tell of all his great achievements, the majority of which have been in the interest of the Erie! But it cannot be done—certainly not if we depend upon "Jim" Buckley, to tell the story for "Jim" Buckley, while not over-modest, has his own notions about good taste, and when it comes to talking about himself he is as secretive as a member of the tightest secret order in the world.

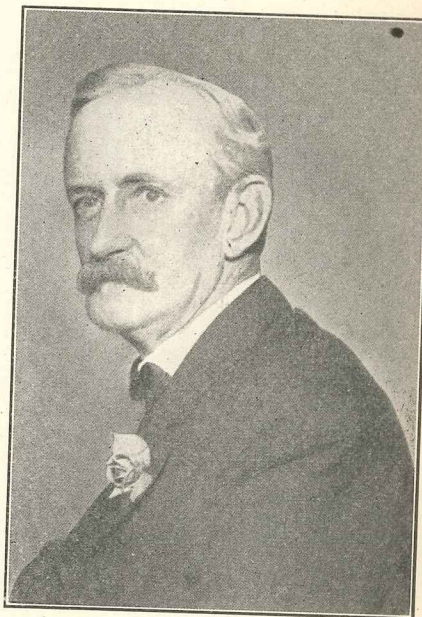
So what is here related, it is to be understood, is gathered not with the assistance or knowledge of the "dean," but from some of those who have been associated with him and those who have fought, bled and almost died together in the same trench (Broadway) in the old days and in the new to capture the passenger traffic of the great metropolis.

The father of James Buckley ran a

cotton mill in Paterson. In fact, it was said of him that he ran a cotton mill in summer and the New Jersey legislature in winter.

Being engaged in the manufacturing industry the question has been asked, "Why didn't young James follow in the footsteps of his father and go in business with him?"

The reply is, that he had a strong inclination toward railroad life and none toward the cotton manufacturing industry. That his success in the passenger department of the Erie shows



JAMES BUCKLEY, G.E.P.A., Erie Railroad,
399 Broadway, New York

that his desire to be a railroad man was well founded will not be disputed. Perhaps he might not have shone so brightly as a manufacturer, even though he might not have tried to run the state legislature at all.

Mr. Buckley has been a member of the large Erie family, which is still growing, since September 25, 1864, when he began as bookkeeper and ticket writer at the Duane Street (New York) offices. It is said of "Jim" that he could add up a column of figures quicker than a cat could get away from

a thrown stone, and the latter is almost unbeatable.

This versatile man has stuck to the passenger end of the railroad game ever since he wrote tickets, hence his success. He never believed in the rolling stone.

"Jim" is a Paterson boy by birth—a New Yorker by adoption. Like millions of our American youth he had a leaning toward railroad life and jumped into it at the earliest opportunity.

When he first came with the Erie the gay and festive ticket runners were plying their vocation with much avidity and were hot on the trail of every immigrant that landed at Castle Garden. It goes without saying that "Jim" Buckley acquired his share for the Erie.

The old Grand Opera House at Eighth avenue and Twenty-third street has seen "Jim" as one of the official contingent when that edifice was Erie headquarters. Then he was at the corner of Broadway and Twenty-third street for a long time and finally joined the big colony of railroad people who deal in tickets in the region of Broadway, north of Chambers street.

The records show that the busy Mr. Buckley sold one Tom McGuire the railroad tickets for the first dramatic organization to cross the continent by rail to San Francisco.

This prestige whetted his appetite and he went forth and made it his business to line up all the theatrical people in New York—and he did. The railroad fraternity admits that "Jim" Buckley knows more people who devote their time to the histrionic art than any other dealer in railroad tickets on Broadway. In fact, he has long played the rôle of leading man in the famous drama, "Who Wants to Travel?"

No one would suppose to look him over that he had any interest in political lights, but he has and is credited with being acquainted with the most prominent of them all.

Not only does he know these landlubbers, but his acquaintance extends to the sea, for he knows every sea captain of note that takes a ship out of the port of New York. And that is not all. He knows the most distinguished among lawyers and judges and was at one time foreman of a Grand Jury.

About twenty-five years ago Mr. Buckley took a trip to Europe. Before taking his departure his railroad friends gave him a dinner at an uptown hotel, with covers at fifteen dollars. At that time, so his old friend Harry McClellan of the Wabash says, the boys thought "Jim" was going to retire from

active railroad life. In that surmise he fooled them all, for when he came back completely refreshed and toned up by the trip, he sailed in with more vim than ever and has not quit his activity a bit since then.

In fact, he is an early and late bird at his office, 399 Broadway, and wades through his work like a shell through the European trenches.

Shop Commandments

DON'T throw boards with nails protruding where they can be stepped on.

Don't place heavy objects insecurely on cabs, running boards or other elevations.

Don't try to lift heavy pieces with light chains; if you are not sure, ask some one.

Don't use ropes in lifting machinery; they are not safe in every one's hands.

Don't obstruct the common passages in the shops; it is dangerous.

Don't drive out tight bolts without considering the safety of others.

Don't use a ladder or scaffold without at first making a careful inspection.

Don't start line shaft without knowing that all is clear.

Don't use faulty bolts, clamps, wrenches or other small tools; it sometimes results in minor injuries.

Don't fail to look up occasionally; there is danger from above as well as below.

Don't fail to use your eyes. It is not sufficient that they be good enough to pass examinations. By always watching where you step you may save yourself and others a bad accident.

Don't forget that extreme caution pays when occupied about machinery. A moment's care may save you a lifetime of regret.

Don't forget the other fellow. Careful men are hurt and killed every hour through the negligence of others. Better be safe than sorry.—*Pacific Semaphore*.

Brain Food

A girl reading in a paper that fish was excellent brain-food, wrote to the editor: "Dear sir—Seeing as you say how fish is good for the brains, what kind of fish shall I eat?"

To this the editor replied: "Dear Miss—Judging from the composition of your letter, I should advise you to eat a whale."—*Fishmongers Journal*.

Fond of Sorrel Horses

Washington had a special fondness for sorrel horses. He rode a fine one at the battle of Trenton.—*Washington Star*.

Springfield (Ohio) Erie Agency

By E. W. VAIL, General Agent

SPRINGFIELD, Ohio, was first settled by James Demint in the year 1799, and the name undoubtedly was conferred upon it by the never-failing and innumerable fresh water springs, the city having today the purest water (by actual test) of any city in the state of Ohio.

During 1801 Demint laid out the first plat of the city-to-be, consisting of ninety-six lots, of which he was the sole owner through grant from the government. Today, Springfield is voted the "Best 60,000 City in America," and has evolved itself from a one-man ownership to its present proportions with a tax duplicate of more than sixty-two million dollars, with one in every five inhabitants a tax payer.

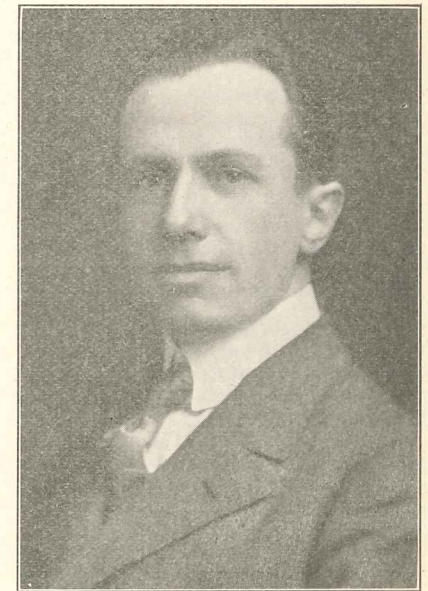
Springfield is founded upon her seven hills surrounding the fertile valleys of Mad river and Lagonda creek, the average elevation nearly one thousand feet above sea level, and for this reason is immune from devastating floods. It covers an area of eight thousand acres, four hundred of which constitute one of the most beautiful parks in the state.

Why is Springfield such a thriving manufacturing community? Suitable building sites, transportation facilities, nearness to raw materials, a stable labor market, power at reasonable cost, a commission-manager form of government, fair distribution of taxes, sound banking institutions, satisfactory living conditions, healthful climate, hospitals, schools, playgrounds, churches, musical activities, parks and boulevards, city markets, improved streets and attractive convention facilities, new hotels, all go to make up the reason and answer the question.

Although Clark county, of which Springfield is the county seat, does not afford much of the supply of raw materials used by the manufacturers, yet all the essentials are in close proximity and the nearness of the sources of supply, together with equitable freight rates and excellent transportation facilities, serve to place Springfield in an enviable position as a manufacturing center. The right to supremacy in this line is best attested to by her more than three hundred thriving industries whose products find ready sale in every civilized country on the globe. Notably among her products we find agricultural implements, electric motors and fans, motors trucks, road rollers, metallic

caskets, grave vaults, emery wheels, machine tools, piano plates, advertising novelties, gas and gasoline engines, water power machinery, automobile tires and rubber mats, metal wheels, radiators, and various other products of which space will not permit individual mention.

Notwithstanding that practically all of the manufacturing plants are well located there are still many available factory sites that meet the requirements of gas, electricity, city street car service, city water and sewers, and the majority afford railway connections, and can be secured at reasonable prices.



E. W. VAIL

Passenger and freight facilities are afforded by the Erie railroad, Big Four, Pennsylvania and Detroit, Toledo & Ironton railroads which handle a total of seventy-three passenger trains and approximately 3,000 freight cars each twenty-four hours. Interurban facilities are afforded by three divisions of the Ohio Electric railway operating between Cincinnati, Toledo and Columbus; The Springfield Terminal Railway and Power company between Troy and Springfield, Ohio, the Springfield &

Xenia railway between Xenia and Springfield, Ohio, and the Springfield & Washington railway between South Charleston and Springfield, Ohio, all told operating two hundred and fifty-six passenger cars daily in addition to their freight service.

AN explanation as to the manner in which Erie railroad business is handled to and from Springfield may be of interest to our various representatives.

First: The Erie railroad has joint use of all the Detroit, Toledo & Ironton railroad terminals in the city of Springfield and can effect delivery to all concerns located in the city through reciprocal switching arrangements, or may be handled via junctions with the lines entering Springfield, we having percents in connection with all lines here.

Second: The Erie railroad is a terminal line in Springfield and is considered as an Erie system station on all business to and from eastern territory (including Erie Despatch), and all such business may be waybilled via Erie direct, or may be routed via junctions in connection with the C. C. C. & St. L. or P. C. C. & St. L., Erie Despatch route applying via Durbin, Ohio, and Akron, Ohio, respectively, via last named lines.

With reference to business moving to and from western territory (by this we mean all territory west of the line of the D. T. & I. R. R.), properly routes via Lima, Ohio, in connection with the D. T. & I. R. R. as the D. T. & I. is the terminal line for western business, or, we may route via C. C. C. & St. L. via Kenton, Ohio. In other words the Erie is initial and delivering line on business to and from eastern territory but is not initial or delivering line on business moving to and from western territory.

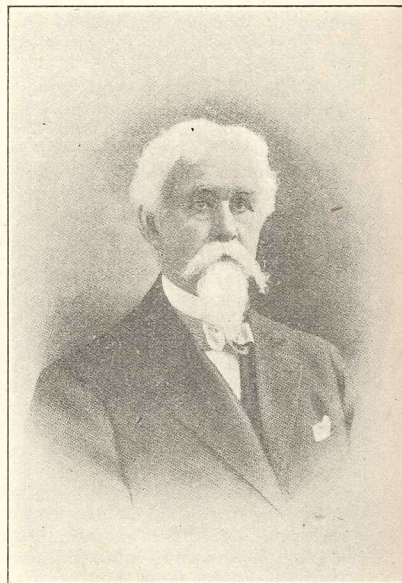
The Erie railroad passenger service operates to and from Springfield city via the Springfield Terminal Railway & Power company, special interurban cars meeting each passenger train at Maitland, Ohio, this being a junction with the D. T. & I., also, being located just north of the city almost within the corporate limits. The Erie railroad city passenger station is located in the heart of the city in the Arcade building.

Closing this brief history and description of Springfield we can heartily say that it is indeed one of the most desirable cities in the middle west in which to live, and the spirit manifested can but result in further progress. "Share Springfield's Success."

Resembles Buffalo Bill

TREASURER BIGONEY of the Erie acknowledges the receipt of a valued photograph here reproduced, of M. B. Bushnell, for many years agent of the Erie Railroad company at Mansfield, Ohio.

Mr. Bushnell bears a remarkable resemblance to the late Colonel William F. Cody (Buffalo Bill); also to his prototype, the editor's valued friend, who was also a friend and associate of Buffalo Bill—Colonel John S. Bell of Newark, N. J.



M. B. BUSHNELL

Mr. Bushnell, still hale and hearty, is a prominent and highly respected citizen of Mansfield, and among his varied interests is president of the Richland Savings Bank, of which his son, F. M. Bushnell, is vice-president.

There are not many agents now on the Erie who knew M. B. Bushnell by correspondence or otherwise, but those who are still with the property will find pleasure in seeing his portrait, and they will realize how good service with the Erie leads to handsome and dignified old age.

The *Erie Railroad Magazine* extends its compliments to Mr. Bushnell, with its best wishes for still more years of prosperity and happiness.

Examples in Shop Arithmetic

[BOILERS]

By H. E. BLACKBURN, Instructor of Apprentices, Erie Railroad

IN general use there are but two kinds of boilers, namely *water tube*, or where the water is on the inside, and *fire tube*, or where the water is on the outside of the tubes. The locomotive is a fire tube boiler, and it consists of a steel shell containing water which is converted into steam by the heat of the fire in the firebox, passing through tubes that run through the water in the boiler.

Boilers are classified according to their shape.

A *straight top* boiler has a shell of uniform diameter from the firebox to the smokebox.

A *wagon top* boiler has a conical, or sloping course of plates next to the firebox, and tapering down to the cylindrical courses.

Probably no subject is more confusing and more difficult for the boiler-maker apprentice to understand than the design of proper proportioning of rivet joints.

No riveted joint can ever be as strong as the solid plate.

If we say a joint is seventy-five per cent efficient, we mean that it is only three-fourths as strong as a solid plate which is considered one hundred per cent.

Riveted joints break or fail in a number of ways, depending upon the style of the joint. In some the plate tears apart between the rivet holes, in others the rivets shear or break off, and sometimes both occur.

The bursting pressure of a boiler shell is found by multiplying the tensile strength of the plate in pounds per square inch, by the thickness of the plate in inches and dividing by the radius of the boiler (one-half the diam.) in inches,

Example

Tensile strength of plate.....	55,000-pounds
Diam. of boiler	60-in.
Thickness of plate	$\frac{3}{8}$ -in.
Double riveted joints	70 per cent
$55,000 \times .375 \times 70$	
$\frac{\quad}{30 (\frac{1}{2} \text{ of } 60)} = 481 \text{ pounds}$	
per square inch	

Factor of safety—When we say a boiler has a factor of safety five, it means that if the boiler were intended to carry 200 pounds pressure per square inch, it is designed strongly enough to carry 1,000 pounds or five

times as much pressure as is necessary.

The *tensile strength* of a boiler shell is the pull applied in the direction of its length in order to break a piece one inch square in area.

Different pieces are taken from several sheets, and these are reduced to $\frac{1}{4}$ in. square, and placed in the jaws of a testing machine. A pull is now given until the average strength of the samples is obtained. This is multiplied by sixteen to determine the strength of one square inch.

The tensile strength of boiler steel is about 66,000 pounds. If above this it is too hard.

To find the *safe working pressure* for a single riveted boiler:

Example

Boiler shell 72 in. diam. (36-R.)	
Boiler shell thickness $\frac{1}{2}$ in.	
Tensile strength 66,000 pounds	
(Constant) $\frac{1}{6}$ of 66,000 = 11,000	
$\frac{1}{2} \times 11,000 = 5,500$	
$5,500 \div 36 = 152.75$ pounds	

A super-heater is an arrangement of tubes and heads, placed in a locomotive boiler to impart heat to the steam, in addition to that which it already holds as saturated steam, thereby giving it power to do more work.

This additional heat is imparted after the steam leaves the dry pipe, and before it enters the steam pipe, to the cylinders.

In order to get the superheat tubes in, about fifty tubes five inches in diameter are placed in the upper part of the flue sheets into these the small super heat tubes are placed.

Trailing Arbutus

IS there any trailing arbutus growing in your vicinity? If so, write to the editor of this Magazine and tell us all about it. It is one of the earliest and most beautiful wild flowers. Perhaps the reader knows all about it; if so, tell the readers of the Magazine.

The Busy Beetle

One pair of potato beetles may have 60,000,000 descendants in one season.—*Live Stock Journal.*