THE
"SAFETY"
MOVEMENT.

Presented by the
GREAT WESTERN RAILWAY COMPANY
to each of their 80,000 Employees.
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CHAPTER I.

INTRODUCTION.

HUMAN lives are cheap. Dirt cheap. Men risk them for nothing. They sell them like old crocks. They do, really. Men will take their lives in their hands to save a few yards' walk, or to save waiting a minute or two. They'll even do it for fun.

There are risks inseparable from every calling. It's a pity, but there it is. Of course, sensible men try to avoid them. Self-preservation is a natural instinct. There might be excuses for lack of foresight or want of thought, but what shall we say of men who, in cold blood, actually adopt dangerous and forbidden practices, and risk their lives for so small a purpose as saving a little time or trouble?

A bit of straight talk to the men of the railway service on the subject of personal accidents is needed. Many a man in usual and simple duties places his life and limb—and those of his mates—in peril through sheer want of ordinary care. No one has any right to display such indifference in the routine of his work as to cause injury to his fellows or, for that matter, to himself, but it is done almost daily. Worse than this. After regulations have been carefully framed by the railway company for the purpose of guarding against personal injuries, and brought under the notice of every man concerned, they are often flung to the four winds of heaven, and risks and dangers deliberately created.

Is it any wonder that accidents happen? Of course the men judge that it'll be all right. In many cases it is. But sometimes it isn't. It's the all-right cases that make men venturesome. Even narrow squeaks don't make them careful.
When a man's killed, what do we find? Is it that it was the first time he had taken the risk? No, not in one case out of a hundred. We find he'd done it before, many a time. Escaped lots of times. Was as nimble as he thought he'd be. The trucks he crawled under didn't move. He thought they wouldn't. Found he was right. Counted himself lucky. Or the buffers he squeezed between didn't budge. He thought they wouldn't. Right again. But once his judgment was wrong. Enough said. It came upon you, then, to pick him up and break the news to his widow.

There's no "gammon" about this. We're not making it up. It's always happening. Men get used to taking risks. Familiarity breeds contempt. It's an unlucky habit to get into. Take that from us. Don't do it. Keep on safe ground. If you've been doing it, stop it. Be wise. Don't take risks. The game isn't worth the candle. You haven't always got to be a daredevil to get cut down. Don't run away with that notion. You've only to misjudge things a bit. You've just to overlook the possibility of a slip, or the chance of an unexpected movement, and you're done for before you can say "Jack Robinson." Judgment is all very well. Experience goes for a lot, too. But when it comes to taking a risk—or half a risk—of your life, SAFETY'S best.

We want to induce our readers to have a care for safety—to cultivate habits of thought and consideration that will prevent injuries to themselves and their mates. Moreover, we want to obtain the co-operation of every railway man in these efforts to prevent needless suffering and distress. Not infrequently one sees some act of thoughtlessness or indiscretion whereby risk of injury is incurred. At such a time a word of warning may avert a calamity. It is the duty of everybody to have regard for the preservation of safety.

Laxity grows. Habits of indifference to risk—seemingly slight—are easily acquired. Young hands copy the ways of older ones, and risks are perpetuated. No one voluntarily
incurs injury, but risks, apparently small, frequently turn out serious hazards. Why take the risks? Life and limb are infinitely precious. Always choose the "Safety" method of doing your work.

"It's all very well, BUT—." That's what some of the wise-acres say about the "Safety" movement. We saw it stated in a certain journal that "many of the so-called regulations are known to be quite impracticable. The only object served is that of dummies for window-dressing." That's the kind of notion that does the mischief. Act up to it, and you'll be lucky if you're not killed or injured within a week. This view of the rules may be useful to make "copy" for a journalist, but it won't do for the man on the job.

The Board of Trade Report on Accidents shows that 1,500 railwaymen were injured in the United Kingdom in 1912 owing to their own misconduct or want of caution.

That's a nut for the "It's-all-very-well,-BUT——" man to crack. Here's another:

In 1912, 352 railwaymen were injured through want of caution or breach of rules, &c., ON THE PART OF OTHERS.

We are out to convince you that there's no "but" about it. The "safety" rules have ripe experience behind them. They were made to be carried out.

Who gets the crushed limbs or mangled body when broken rules cause an accident? It isn't the literary chap, is it? That's the rub.

It's no use jacketing a man who has injured himself. His suffering is enough of a penalty for him. And it's wasting breath to tell him what he ought not to have done. He knows it. It might have been his own fault—he might even have been playing the fool. Never mind. We give him sympathy and a helping hand. Don't pile on the agony with advice. He'll become a "Safety" man of his own account. But we can profit by his experience. Don't let us wait for a like injury to bring home to us where the danger is.
It's a pretty stiff job to make some men careful. They want an awful lot of persuasion. Advice goes in at one ear and out of the other, and they only begin to see the force of it when the ambulance men are busy with them. That's not a dig at the ambulance men. Their movement's one of the best. There's a better one, though. That's the "SAFETY" movement. They relieve suffering, but we go one better, and prevent it. All honour to them! But we'd like to do them out of every job we could, all the same. That's what we're out for.

To secure the assistance of good spirits against evil ones, the Gnostics—an ancient sect of so-called philosophers—used the word "Abracadabra." When beset with difficulties, or otherwise in a tight corner, they just said "Abracadabra," and—presto!—the trouble vanished! They wrote the magic word in a triangle and wore it round the neck for nine days, when it was a charm against fevers and the like—so they said. Charms—if they'll only act—have a lot to be said for them. We like the simplicity of the thing, and have been looking for a charm against railway accidents.

We said we've been looking for a charm against railway accidents. We've diligently searched in all directions and—rejoice with us!—we've found one! It's a simple three-word phrase, easy to remember and certain in its power. You've only to say it to yourself as you go about your work, then act on the impulse it will give you, and you'll escape dangers that another fellow would be killed or maimed by. That's what we claim for it. And we're serious about it, too. Suppose, for instance, you want to cross the line in a hurry, or to stick a shunting pole in a truck and have a ride on it, or to creep underneath the wagons of a standing train, or any of the thousand and one other things that have cost lots of men their lives, all you have to do is first to repeat this magic phrase—and then act on the inspiration that'll come to you. Now then, you ask, what's this wonderful phrase? It's this: "IS IT SAFE?" Just ask yourself that question. Do it before the job is attempted. Do it before you're foul of the
four-foot. Say it before you stoop down to get between the wagon wheels. Repeat it before you start work with an unguarded machine. When you're hurrying and scurrying and a short cut is at hand, ask yourself, "IS IT SAFE?" Then there'll come to you an inspiration. Self-preservation is the first law of Nature. It's for you to act on the "SAFETY" impulse. Do so. Always do so.

"Out of sight out of mind" is the chief trouble with "SAFETY" advice. While you're reading it you no doubt agree with it, you pity the poor fellows whose misdeeds and their consequences are related, and you thank God you are not as other men are; but when you put the book into your locker the advice goes with it. You forget the warnings, you repeat the risks, and—you pay the penalty. There continue to be fresh accidents from the same causes. Fresh lives and limbs are sacrificed which the advice, if remembered, would have saved. Then there are other causes that don't happen to be mentioned in these warnings. Some of you are so used to taking risks that you see no danger in them. Injuries are costly eye-openers. You can't afford them. What's to be done? How can dangers be made apparent? That's the problem? And here's the answer: Get into the "IS-IT-SAFE?" habit. Keep the question uppermost. It's the kernel of the whole "SAFETY" business. Use it all you can. Get your mates familiar with it. It's better than "Safety first." It's not so vague. It's dead on the point of "SAFETY"—first, second, third, and all through the series. That's what we're after. Let's stick to this and make it a railway phrase.

We want your help in this movement. Talk about it. Praise it. Blame it. Criticise it. Laugh at it. Ridicule it. Do anything you like with it. It'll all help to keep it fresh in fellows' minds. That's our aim. And we've enough confidence in the common sense of the men to know that, whatever may be said about the "IS-IT-SAFE?" habit, they'll see that it's for their good. The more they hear about it the more they'll be likely to remember it at the moment they most need it.
CHAPTER II.

THE TRAGEDY OF THE FOUR-FOOT.

"Before Crossing the Line look in both directions" is advice that has been emphasised over and over again. Yet it is disregarded with appalling frequency. Hundreds of men have paid the penalty with their lives. Read these typical cases: An unfortunate yard foreman at Leamington stepped on to the line without looking to see whether or not a train was approaching; an express was upon him almost at once, and the poor fellow was killed. A widow, five children, and an aged mother were left to mourn his loss.

Before Crossing the Line,

LOOK

in BOTH Directions.

A packer was killed in a similar way at Cross Keys. He was walking up the line. There was a path on the up side, but instead of using it he got on to the down road for an up train to pass. 'Twas a dark, rough night, and a down train came on him unawares. He was killed on the spot. He left a widow and two children. What a pity he did not keep to the pathway, cut of harm's way!

With a cheery "Good-day" an engine-driver at Bristol left one of his mates and walked away to join his engine. Shortly afterwards he was picked up in the "four-foot," dead,
with his head and forearm severed. He had omitted the precaution we are asking you to adopt.

A young married fireman at Tyseley got off his engine on to the line without looking to see if a train was coming. A passing excursion train caught him, his skull was fractured, and he died.

"Into the Jaws of Death."
Many a man loses his life through not looking in both directions before crossing the line.

A ganger at Wellington wanted to cross the line. A down train was approaching and he waited for it to pass. Just then was the time when the question "IS IT SAFE?" ought to have come in. It would have been a good thing for him if it had. As soon as the down train went by he started to cross; an up train came on him unobserved, caught him and knocked him down. He was lucky to escape with his life, but his head and shoulder were injured and some of his fingers crushed.

On his way to change the lamps in the distant signal, a porter at Limpley Stoke stepped off the down line out of the way of a train, and walked straight on to the other line. Had he looked around he would have seen an up train coming. But he didn't, and he was knocked down and killed. Why he walked on the line at all is a mystery.
There was a footpath by the side, where he would have been safe.

It was only by the skin of his teeth that a man at Banbury escaped being killed. He had about as close a shave as anyone could have. He was crossing the line, and—forgetful of danger—looked in one direction only. A train came the other way. It was just on top of him when he noticed it. He hadn't even time to jump off the line. As quick as thought he lay down, and the train passed over him. He bruised his knee a bit, but saved his life. It isn't every man who has such presence of mind as that. Don't count on it, anyway. It's not likely that even he could do the thing so neatly a second time.

Walking in the up direction on the sleepers of the up loop line at Bradford-on-Avon, an Engineering department man got overtaken by a train. The engine knocked him down. 'Twas a mercy he wasn't killed. Everybody knows the great peril there is in walking on the line on which a train may come up from behind. The other road—where you'd be facing an oncoming train—is bad enough. 'Tis best to keep off even that, if you can. Guard against danger before it's on you. When you're lying injured on the ground it's too late to ask yourself, etc.

Being used to the line is not a safeguard against accidents. Don't imagine that it is. The men who get cut down are as frequently old hands as young ones. An Engineering department pensioner, who was formerly a packer, got on to the line to take a short cut to the station at Truro. Within a few minutes the poor fellow was run over and killed.

A crossing keeper of thirty-seven years' experience, living at Durston, returning home after finishing duty, walked along the line instead of taking the public road. A passing express killed him.

Said an old crab to a young one, "Why do you walk so crooked, child? Walk straight." "Show me the way,"
said the young crab, "and when I see you walking straight, I, too, will do so." That's it. The young ones will walk in the way the older ones do. A bright, promising lad telegraph clerk at Maidenhead passed behind a standing train and walked into the way of an express. He was instantly killed. One of the witnesses at the inquest said it was a general habit of railwaymen to cross over the line. There you are! The unfortunate lad followed the example of the men, who were in the habit of walking across the line. We want to break down that habit. IS IT SAFE?

**Learn to distrust the four-foot.** Avoid it all you can. Regard it as an open trap. Look upon haste as a bait. Don't be lured into danger by the prospect of saving a few minutes. Make it a rule to keep off the running lines

**Learn to Avoid** as much as your duties will permit. Don't risk your life for the sake of taking a short cut to somewhere. And when you are not on duty stay away from the railway—you get enough of it when you are bound to be there.
CHAPTER III.

NEEDLESS RISKS IN TRAFFIC WORKING.

Look at this picture. Probably there are few readers to whom the sight is a strange one. What does that mean? It means that the practice of riding on a shunting-pole is not uncommon. Everyone knows that it is forbidden. And why? Obviously because of its danger.

Many an unfortunate fellow has attempted it to his peril. There is a man at Paddington who, nineteen years ago, lost both his legs through doing this. A sudden jerk of the vehicles threw him off the shunting-pole, which caught him in the back and knocked him down, and his legs were run over. A thoughtless moment entailed
disablement for the rest of his life. Scores of other serious accidents have happened in the same way.

Keep an eye on the waste-water pipe when walking past or standing by an engine. Some enginemen have a habit of sending out steam and hot water without looking to see whether or not anyone is near the pipe. It is quite a frequent thing for men to be badly scalded in this way. Stand clear and be on the safe side. Enginemen, have a thought for the men in the yard, and before putting the injector to work, just make sure that no one is standing near the waste-water pipe. It's up to you to be careful about this hot water business.

Here's another risky practice. The man is using his shunting-pole as a brake-stick. The shunting-pole was never intended for this. It isn't strong enough. What happens if it breaks, as it is quite likely to?

Down goes the man with half the pole in his hands, and the
chances are he gets entangled in the wheels. The danger is obvious. A great many men have sustained life-long disablement through this.

How NOT to Push a Wagon.

Notice the position of the front man in the first illustration of a wagon being pushed. When the buffers come together he'll know it. This is how a man we know of went at the job. Needless to say, he got his fingers crushed.

The Right Way.

The next picture, showing the "right" way, indicates the "SAFETY" method
You can't advise some men; they know too much. The man who got his hand crushed between the buffers was previously warned the same day about this very thing. It sometimes takes an injury to send a lesson home.

The pictures on this page speak for themselves. They represent a danger trap that somebody's carelessness made for a goods porter at Aberdare, who was crippled for seven weeks in consequence. The falling of a heavy door upon a man might easily ruin him for life or kill him outright. It is all too common to leave truck doors up unsecured when the vehicles are being shunted close to the heads of unsuspecting yardmen. There's no excuse for indifference about this.
Don't forget that there's a right and a wrong way with car pushers. Our pictures show both ways. The man with one leg in the four-foot stands the risk of getting run over from behind. It's a bad plan to foul the four-foot at any time if you can do the job without it. Take that as a general principle. It's on the four-foot where most of the mischief is done.

Some yardmen are given to leaving obstructions in the "six-foot." You may find sprags, brake sticks, unfolded sheets, and all manner of things lying about. During daylight, when you can see them, it isn't so bad. You might manage to pick your way among them without getting hurt; but try walking through the yard at night, with
wagons being shunted to and fro on the lines alongside you. It's then that they've a knack of coming to your notice. You'll be certain to come across every one of them. Keep an eye open for them when it's light and clear them out of the way.

A perilous practice among van-guards is to get a "lift-up" on to a moving goods lorry by stepping on to a spoke of the wheel. Failing to spring off before the spoke has passed the horizontal position, or slipping even before that, has resulted in falls accompanied by serious injuries. It is the easiest thing in the world to slip, and the wheels of a moving vehicle are nothing to play with. Van guards who do this kind of thing are tempting Providence, and carmen and others should make no bones about putting a stop to the dangerous practice.

The chap at fault isn't always the one who suffers. His every picture tells a story.—You'll be wiser for studying the stories these pictures tell.
see that the course is clear before throwing the door open. It is true that the chances may be against anyone being right by the carriage door at the moment it is thrown open. But some people seem to have been born under unlucky stars. They’re right in the wrong place at the right moment. The accidents shown in these pictures really happened.

A Picture which speaks for itself.

The Man inside the Carriage should look out before opening the door.

IS IT SAFE to mount on to a van by using one of the traces as a step? How would the horse be likely to take it? A Paddington goods carman tried the experiment. The horse kicked him. Of course it did. Men whose business it is to deal with horses ought to allow for the nature of the creatures. Scarcely a day passes without one or more railwaymen being reported as bitten or kicked by them. A bit of care or forethought would avoid most of these injuries.

JUST fancy riding down a slope on a trolley like the fly-away gentleman in the next picture. That’s the game a man at Swindon got up to. Jolly fun, no doubt, so long as it lasted. But anyone with half an eye could see that it wouldn’t last
long. If we hadn’t put the second picture in you could have guessed what it was, couldn’t you? The “IS-IT-SAFE?” motto would have shown him the risk he was running.

Don’t put too much muscle into the process of closing the doors of passenger carriages. The way some men slam the doors is distracting to the passengers, and woe betides anyone who happens to have a hand or foot on the doorframe. A great many injuries have been caused in this way. True, the passengers ought to keep themselves clear, but often-times a thoughtless one, or an inexperienced child, doesn’t do so. A little care on the part of the staff may save a lot of suffering. Apart from this, we are all proud of the comfort with which the patrons of our line travel, and this is a way in which it can be added to.

Always give a thought to “IS-IT-SAFE?” before disconnecting the steam-pipes of passenger coaches. Of course, the steam-cocks on the carriages should be turned
before the pipes are separated. If they aren’t you’ll get the steam over you. It’s not sufficient to shut off the steam from the engine. There’s often enough steam between the engine and the pipe ends to make it uncomfortable for you. A porter at Exeter had his face badly scalded, although the steam had been shut off from the engine for some minutes.

Without a thought of the risk he was running, a shunter at Weymouth went between two corridor coaches that were coming together, to couple them up. There’s a regulation that they shouldn’t be coupled until they are at rest.

Perhaps he forgot it. But if he’d only asked himself, “IS IT SAFE?” he’d have seen that it wasn’t. What happened? When the gangways came together, they caught the unfortunate man’s head between them.

There’s another dangerous thing some men do in joining corridor coaches. They stand on the buffer-rods to connect the gangways. Carriage examiners sometimes stand in the same way when fixing slip adaptors, and other men when attaching or detaching lamps. Crippled for life may easily be the penalty. Should the buffers be compressed, both feet would be crushed. The feet should rest on the buffer guides.
Placing a hand on the buffer of a vehicle when springing from the platform to the line, is a common practice. But it's not altogether safe. Sometimes the buffer-rod is broken inside the shell, or not fixed very firmly, and when the buffer is pressed upon, it revolves. Down goes the man headlong on to the line. Never use a buffer in this way without first trying it to make sure that it's firm.

Don't hang around a spring point-lever when an engine or some trucks are likely to pass over the points. When the wheels reverse the points, the lever flies over with enough force to damage you beyond

Keep clear of point-levers which spring over when a vehicle runs through the points. A Signal department man, who knew the working of these levers, and, in fact, had previously warned a fellow-workman about one at Bristol, stood by that same one soon afterwards, while he put on leg-irons to climb a pole. An engine happened to run through the points, when the lever sprang over and gave the stooping man a terrific blow on the side of his head. Our illustrations show how it happened. Don't sit or lean on

Lever unexpectedly reversed. Result—man's ear lacerated and head injured.
the guard near these levers. Some folks prop themselves against this kind of thing while they're waiting or talking. It isn't safe. Keep clear.

Observe the man in the picture who is about to shift a box of goods. When we went around with a camera to take this photograph, we found him with his hand bleeding. He had just run up against the danger we were looking for. Placing his hands over opposite corners of the box, in the orthodox fashion, he grasped—what? There it is on the right-hand side. Look at the jagged out-turned end of the iron binding on the box. Sharp as a knife. Laden with

This may be the condition of the iron binding. Many men get their hands badly cut in this way.

Before grasping corner of box with iron binding around edges have a thought for "IS-IT-SAFE?"

rust and dirt that'll do no good if they get into one's blood. People who hand railway companies boxes in this sort of condition ought to be—there, it's only the railwayman we're concerned with at the moment. He'll be wise to tackle these iron-bound boxes a little gingerly, especially if they appear to have had some knocking about. Before giving them a muscular grip it will be well to entertain a suspicion as to IS-IT-SAFE?
CHAPTER IV.

BREAKING THE "SAFETY" RULES.

A long list of accidents is put down every year to jumping on to the footboards of moving passenger trains. A fall between the train and platform, through a greasy footboard or a false step, means almost certain death, or, at least, terrible injuries. If ever there was a foolhardy practice this is one. It might have been thought that the number of lives and limbs it has cost would have stopped it long ago. In addition to the warnings these casualties afford, there is this positive prohibition of the practice in the General Rule Book:—

"No servant must jump on to the steps or footboards, or run alongside, of trains entering stations."

Another rule laid down for men’s protection is this:—

"Loose handles of cranes must be removed before lowering is commenced, and lowering gear, if provided, must always be used."

Disregard of this rule has several times resulted in a crane handle being swung round violently in the process of lowering, and striking the man in the face or elsewhere, causing him serious injury.

It is just a little trouble, when sheet-ties are worn or defective, to detach them from the sheets and replace them by new ones, supplies of which are kept on hand at the stations. Perhaps this is why men frequently choose to incur risk—or cause someone else to incur it—rather than give due attention to defective sheet-ties. The regulations say:—
"In the event of any of the sheet-ties being missing or unfit for use, they must be replaced by new ones, supplies of which can be ordered from the Stores Department in the usual way."

Breach of this instruction has resulted in numerous cases of personal injury—sheet-ties having broken and caused falls and other accidents.

The instructions supplied to carmen contain this rule:—

"It is the duty of the carmen to take the horses out of the vehicle. After the horses are re-leased, the van pole must be placed over the axle-bed of the fore-carriage. Shafts must be raised and fastened by the chain provided for the purpose."

This is often disregarded, and vehicles left with the shafts raised without being secured. What has happened? Upon the vehicles being moved, the shafts have fallen on to a man's head or shoulder. A fatal accident could easily be caused in this way.

Here's another case showing the peril of breaking the "Safety" rules. At Campden station, where tow-roping was forbidden, two up-to-date car pushers were provided. A couple of horse boxes had to be berthed there. It could have been done easily with one of the car pushers, which was close at hand. But no. The men got a rope—just an ordinary one—tied both ends together, hitched it on to the horse boxes and began towing with an engine. The rules—framed for safety—were ignored. The appliances, put there for the same purpose, went for nothing. What happened? One of the men got entangled in the rope, was thrown under the wheels, had both legs fractured and internal parts injured, and died in the hospital three hours later. Then it came out that tow-roping had been done there before. That's just it. When breaches of regulations begin and men get into the habit of taking risks, you never know where it will end. Be straight. Don't have a hand in hole-and-corner, risk-taking, regulation-breaking jobs. Play the game.

Let us put this question to every reader: Are you authorised
to work hydraulic capstans? If not, have the good sense to leave them alone. The rules say this:—

"No persons except those duly authorised must be allowed to work hydraulic appliances. Porters or others found working them without proper authority will be liable to dismissal."

But apart from the rules, perhaps you have a wife and family to think of? There's your own life, at any rate, to care for. More than one man has been killed by the capstan hook flying off a wagon through someone handling the machine who had no business to, and lots of men have been injured in the same way. Now, don't forget, if you are not authorised, hands off!

It's all very well to be sorry for a man when he's injured or killed. But it's a bit late in the day then to start showing your interest in him. It's much better to show it before he has run into trouble, and keep him out of it. Lookers-on are no friends to a man when they let him carry on dangerous practices without a rebuke. Bear in mind the rule which says this:

"All are requested to prevent, as far as they possibly can, exposure to danger on the part of their fellow-servants, and to spare no opportunity of warning those who neglect to take proper care."
CHAPTER V.

RISKS IN THE SHOPS.

You can't afford to be careless with moving machinery. Some men have a dangerous trick with lathes and machines for drilling, planing, shaving, and the like. They scrape the chippings away with their hands. They're given a little brush for the job. But it's too much trouble to use it. Injuries to fingers are quite frequent through this. The "Safety" plan pays. It takes less time to pick up a brush than to get rid of a damaged finger.
HERE are some pictures of a man with loose and tight sleeves at a lathe. It's quite plain what they're intended to show. But don't think that it's only with lathes that this precaution is needed. Loose sleeves are an abomination with all kinds of moving machinery. An eye wants to be kept, too, on open jackets, flying aprons, and the like. Just prod yourself with an occasional "IS-IT-SAFE?" That'll apply to them all.

EVERYONE knows how a saw is liable to "jump" when cutting is commenced and before it has made a groove. Cross-cut saws are worse than others, because of their weight and large teeth and the fact that they are worked from both ends. For this reason it is dangerous to guide the saw with the naked hand. But the practice is quite common, and scores of men have lost their fingers through it. The right way is to place a piece of board along the edge of the saw. It is better to be safe than sorry, and it takes but a few seconds to adopt this precaution.
A Wrong Way of starting a Saw.—If the Saw "jumps," the man may lose his fingers.

Look carefully at the circular saw pictures on the next page. There's a lot in them. More than you'd think at first sight. Circular saws are all right if you follow the "Safety" method. If you don't you're likely to remember it. Examine the first picture. Notice the position of the saw guard—the man's naked hand—the tilt in the timber at the end next the saw—
ALL WRONG.

Unguarded saw, unprotected hand, loose apron being worn, end of timber raised near saw.

and that the man is wearing an apron. All these are dangerous. Any one of them might cause injury. The second picture speaks for itself. That's the "Safety" way. Don't neglect these precautions. They'll pay you.

THE RIGHT WAY.

Saw guarded, hand protected by using strip of wood to guide timber, no loose clothing worn, timber inclined to ensure solid bearing near teeth of saw.
A word to the wise is sufficient. But all folks aren't wise. Some are otherwise. That's putting it mildly. If they ignore warnings, object to precautions and persist in taking risks, and get hurt in consequence, well, they deserve—no, not the injury, but our pity and fresh efforts to get sense into them. The "SAFETY" movement is meant for risk-taking, rule-breaking, sorrow-making fellows. Those are the ones we're after. Peg away at them. Rope them in.

Some folk simply won't look after Number One. We don't like splitting on a fellow—but, really, you ought to know this. The management at the Great Western Railway Swindon Works are keen on goggles being worn by men at jobs where metal chippings fly about. They supply the goggles, and advertise the benefit of the protection. "It's all my eye" say some of the men, and it's no end of a job to get them to wear them. One man, who had put them on very unwillingly, was cutting a balance-block for an engine wheel. A chipping flew off—straight for his eye. Hit the glass of the goggles and broke it. This saved his eye.
He wasn’t injured at all. Our picture shows the actual size of the chipping; and in the top pair of goggles you can see how the glass got served. You’d fancy, that this man would sing a different tune about goggles after that. Indeed, he didn’t. He was as unwilling to wear them after that as he was before. A fortnight later he was on another job of the kind. His objection to goggles wasn’t heeded. He was made to wear them. Another chipping flew up and broke the glass. Again his eye was saved. The second pair of goggles in the picture are the ones he had on. Just notice what happened to the glass. He was a lucky chap. But even now he isn’t certain that he ought to wear goggles!

At first some of the workmen used to think that they’d get hurt by the broken glass. But they were wrong. There have been cases where a large piece of metal struck the goggles with such force as to buckle the rims and smash the glass to atoms, without the eyes being injured. It is reckoned that from twenty to thirty serious injuries to men’s eyes are prevented in a year at the Swindon Works by the use of these goggles.

Inhale the dust from a grindstone and you’ll suffer for it. About 26 cubic inches of air goes into the lungs at each breath, and sixteen or eighteen breaths a minute. Imagine this air laden with dust and grit to be deposited in the 600,000,000 air cells in the lungs. Think, too, of the vital functions of the lungs and their infinitely delicate construction. Dust inhaled is highly
dangerous. Keep it out. Wear a respirator. This will separate the particles from the air.
Take the same precaution when scrubbing water tanks before repainting, stripping canvas roofs off rolling stock, and at other dusty jobs.

Give a thought to the danger in a job, and then you'll take pains to secure protection. For instance, in cutting rivets from an engine frame. Look at the first picture, and ask yourself, "IS IT SAFE?" You'll see at once the danger of the left-hand man getting struck by the rivet when it comes off. The men are not wearing goggles, either. Flying chippings may strike their eyes. Protection from these risks may be easily made. A piece of bagging, formed into a kind of cushion, as seen in the second picture, will break the force of the flying rivet and guard the man from injury. Wearing goggles will save the eyes.
CHAPTER VI.

SOME ADVICE FOR PLATELAYERS.

"ALL TOGETHER," is the right method of lifting or lowering a heavy rail or anything else of the kind. It's as plain as a pikestaff that the weight is shared by the men who've got hold of the burden. Look at the picture showing a group of men lowering a rail. That's the wrong way. Some of the fellows have "let go" too soon. That throws the weight of the rail upon the others. If it doesn't strain or rupture some of them, it's a wonder. That's the way lots of men get hurt. It stands to reason, doesn't it? Don't handle heavy weights with mates who can't see the force of this. Make it clear to them before you start. You might be at the other end when they let go. That's no good to you. The right way is the "all-together" plan. That's the "SAFETY" method.
Don't jump on to the front of a moving trolley. Always count on the possibility of slipping. Don't jump on at the side either. It's nearly as dangerous as at the front. The only difference is that you may get one wheel over you instead of two. Get on behind. If you slip then there won't be much harm done. It's better to fall behind the wheels than in front of them. We know of several men who, in attempting to jump on at the side, fell and got their legs fractured by the wheel running over them.

About picks and shovels. When you're swinging them keep clear of your mates. Don't stand too close together.

Always get on at the back.
Spread out a bit. And when another fellow's busy with a pick or a shovel give him a wide berth if you have to pass him. He may not see you coming, and give you a nasty cut. Don't let him have the chance. Keep clear. Some men have a long reach. Don't judge too finely the length of their arms. Give them an extra foot or two, and be on the safe side.

When knocking off the heads of fang-bolts don't send them flying amongst your mates. Look at the first picture on this page. You can see the danger of it, can't you? It's often done like that, though. Lots of men have received nasty blows and serious injuries through this. A smack on the head with a sledge-driven fang-bolt is no joke. The job can be done without any danger if it is gone about in the right way. Lay a heavy piece of
sacking over the rail, and strike in that direction. The second picture shows how. The sacking will catch the bolt. That'll save doing damage to the fellows near by.

Here's a case that shows the sort of luck some men get. Take a warning from it. A ganger at Washford wanted to measure a bolt in a pair of points. It would only take him a few seconds, and he didn't think it worth while to tell the signalman. But the very moment he put his hand to the bolt, the signalman happened to turn the points. His finger was caught between the switch tongue and stockrail and badly crushed. What's the moral? Isn't it this? Don't trust to luck. Don't take chances—be they ever so small. Make SURE of SAFETY.

Imagine yourself working a few yards in front of the man in the first picture on this page. Look at his brawny arms. See the way he's going to hit off that bolt-head! If our phrase "IS-IT-SAFE?" doesn't come to his mind before he's finished, there's likely to be trouble for somebody. Flying heads of fang-bolts and fish-bolts do a lot of mischief. We've a number of cases in mind.
A man at Chipping Sodbury was hit on the shin; one at Shrewsbury, on the leg; one at Roath and another at Maidenhead in the mouth; one at Southall in the eye, and—. Enough said.

The second picture shows the "SAFETY" way. Knock off the bolt-heads downwards, into the ground. Plate-layers, get your mates on to this. Your own caution may save injuring them, but what'll suit you better is to make them careful not to send a bolt-head flying against you.

Another thing. Don't leave old sleepers and other odds and ends lying about for other people to break their necks over. We remember a case where somebody did this at Market Drayton. A goods guard found it out—to his sorrow. Walking that way at night he tripped over it and sprained his ankle. A nasty sprain it was, too; and that's not the only case of the kind we know of.

Look at the picture on this page. The men are about to place the rail in the chairs. IS IT SAFE? Yes. How's that? Because all the men have had sense enough to catch hold of the rail between the chairs. It's a pity this isn't done always. Sometimes they'll catch hold close by the chairs, and when the rail goes in they get their fingers pinched. Not half a pinch, either! A 44\(\frac{1}{2}\)-foot rail, at
97½ lb. to the yard, with a solid iron chair on the other side of the finger, does the job thoroughly. Scores of men have found this out by painful trial. It's a common cause of injury. If the man in charge altered his order "Let go," to "IS IT SAFE?—Let go," it would probably save many a miserable week on the club.

When working in the six-foot don't forget to keep clear of passing trains. Here's a man who was so intent upon putting his heart and soul into his work that he overlooked where his body was. You can imagine the rest. The six-foot is a wrong place for absent-mindedness. Keep your wits about you when you're there, and be careful to give a wide berth to passing trains.

Dangerous Ground,—Platelayer standing too close to the line.
CHAPTER VII.

WARNINGS FOR EVERYBODY.

HERE'S HAWRI-NKLE that's worth knowing. Everybody ought to know it. Notice the fellow in the picture lifting a heavy weight. Doesn't look much wrong, does it? But it is. With legs apart like that he's throwing most of the weight on his inside. He'll get ruptured. That's what will happen to him. Stands to reason when you think of it, doesn't it? When you've got a heavy weight to lift, keep your legs straight.

Legs apart when Lifting is a frequent cause of Rupture.

The "Safety" Way—Legs not more than 3 inches apart.
under you, feet about three inches apart. Let them bear the weight. They're made for it. That's a useful tip. Don't forget it.

Two Men on One Ladder—Don't risk it.

Each Man should Use a Separate Ladder.

A word about ladders. Don't overlook that they break sometimes. Two men on one at once doesn't give the ladder fair play. Add to it big weights the men may be handling, or the force of heavy pulling, and what can you expect? The "SAFETY" plan is the motto: One man one ladder.

One would think that any pair of novices could safely pick up and carry a scaffold-pole or the like. The job doesn't seem to demand much skill, does it? But let them try.
Nine out of ten men would go the wrong way about it. It looks natural to lift up the front end first. But that's just where a big mistake is made. If that's done, as soon as the man behind picks up his end the weight of the load pulls the front man's shoulders backwards. Look at the picture and you'll be able to imagine how simply the front man can get a nasty strain or a rupture. That wouldn't happen if the back end was lifted first. The man at that end might be pulled forward a bit when the front end came up, but he'd be none the worse for that. The body will bend that way without a strain.

Another thing—the shorter man of the two should be in front. Then the weight of the pole would incline forward.

You've nothing to lose, and much to gain, by adopting the "IS IT SAFE?" method.

When the man at the front end raises a pole first, he is strained backwards when the other end is lifted. The rear end should be lifted first.

If the shorter man is behind, both men will be strained backwards at every step.

There is still another thing. It's this. The pole should rest on one man's right and the other man's left shoulder. It's a great deal easier to carry it that way than when both men hold it on the same side.

G etting under or between wagons is one of the most common causes of men getting killed. We could give any number of cases. Here are a few. Let them be a warning to you. Whenever you are tempted to take a short cut by getting under or between wagons, ask yourself first. "IS IT SAFE?" You know it isn't. Then don't do it.
Just to save a few minutes’ walk, although he was in no hurry, a gas lineman at Reading, instead of taking the proper path, got under a standing goods train to cross the line. The train started before he got through, and he was instantly killed. Several trucks passed over his neck, severing his head from his body. The poor fellow left a widow and two children.

Less than two months after his wedding day, a young man at Paddington met his death in the same way. He wanted to cross a siding on which wagons were standing. A short cut was to get underneath the buffers. He attempted it. Nobody saw him, and the wagons were shunted before he got across. Both legs were terribly injured, and he died in hospital the same day. Passing under wagons in this way is an everyday occurrence. Many men think nothing of it. But it often costs a poor fellow his life. A thoughtless moment entails untold suffering and grief. Hold on to the question: “IS IT SAFE?”

Look at this diagram. Just see how familiarity leads men to take risks. The place is East Bute Docks, Cardiff.

Diagram showing Site of Fatal Accident.

A loaded truck is waiting to be tipped and the other has just been dealt with. After a truck is tipped it runs back empty on to the turn-table, where the circle is marked. It
generally stops dead in the middle of the turn-table. That would leave a space of 18 inches between the buffers of the front loaded wagon and the empty. 18 inches isn't much, is it? It's just enough to let a man get through sideways. No doubt the weigher had passed through that way lots of times. But once—and it was his last time—he went to do it while the empty truck was running back from the tip. He expected the truck would stop in the middle of the turn-table, of course. In ninety-nine cases out of a hundred that's what it would do. But it didn't. The rail was a bit greasy. The truck overshot the mark by a few inches. The poor weigher was caught between the buffers and killed outright. We don't think he would have been there if he had first asked himself, "IS IT SAFE?"

No man gets hurt on purpose. It's just this: he doesn't see the danger at the moment. He thinks he's safe when he isn't. Or, perhaps, he doesn't think at all. Doubtless, none of the men we've written about thought he'd get killed or injured. Keep your eyes open to risks. Let SAFETY be uppermost in your minds. We're out to help you. We're out to get you to help yourselves, too. If there's danger, don't be blind to it. Ask yourselves honestly IS IT SAFE? If it isn't, don't risk it. Why should you? What's the penalty? Aye—and who'll have to pay it?

PAUSE. Think. Behind every paragraph we've written there's suffering—there's sorrow—there's tragedy. That's the crux of it all. Cheap lives. Made cheap by taking risks. Needless risks. Is yours to be cheap? Answer that. The same risks are open to you. Aren't they? So are the same injuries. Can you afford them? Now, can you?

TAKE this book home. Don't put it aside when you've read it. Read it again and again. Let your wife and the children read it, too. They're concerned, don't forget. They'll help to keep you up to the scratch about the "SAFETY" movement, and you'll think of them each time you face the question, "IS IT SAFE?"
CHAPTER VIII.

ONE MONTH'S PERSONAL ACCIDENTS ON THE GREAT WESTERN RAILWAY.

(OCTOBER, 1913.)

This Summary contains all cases of personal injuries, whether the persons injured were incapacitated from duty or not.

**Passenger Department.**

<table>
<thead>
<tr>
<th>Description</th>
<th>Killed</th>
<th>Injured</th>
</tr>
</thead>
<tbody>
<tr>
<td>While coupling, uncoupling, braking or spragging vehicles</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>While attending to points</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>While getting on or off vehicles</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Injured by horses, <em>i.e.</em> bites, kicks, etc.</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Being run over</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Crushed between vehicles</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Falling between train and platform</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Tow-roping at place where practice forbidden</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Falling while walking, riding, or on steps</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>While opening or closing doors of vehicles or buildings</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Falling when getting on or off platforms</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Falling off ladders, etc.</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>While moving goods or luggage</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>While loading, unloading, or sheeting wagons</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td>Miscellaneous accidents</td>
<td>29</td>
<td></td>
</tr>
</tbody>
</table>

4 134
# One Month's Personal Accidents on the Great Western Railway (Continued)

## GOODS DEPARTMENT

<table>
<thead>
<tr>
<th>Description</th>
<th>Killed</th>
<th>Injured</th>
</tr>
</thead>
<tbody>
<tr>
<td>While loading, unloading, and otherwise handling traffic</td>
<td></td>
<td>110</td>
</tr>
<tr>
<td>By falling off vehicles</td>
<td></td>
<td>21</td>
</tr>
<tr>
<td>Injured by horses, <em>i.e.</em> bites, kicks, etc.</td>
<td></td>
<td>33</td>
</tr>
<tr>
<td>Want of care in using lifts</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>While opening and closing doors of wagons</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>By shafts of vans falling</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Run over or otherwise hurt by moving road vehicles</td>
<td></td>
<td>7</td>
</tr>
<tr>
<td>While repairing sheets, <em>i.e.</em> cut by knife, pierced by needle, etc.</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>While using cranes</td>
<td></td>
<td>7</td>
</tr>
<tr>
<td>While sheeting and unsheeting wagons</td>
<td></td>
<td>10</td>
</tr>
<tr>
<td>By nails, iron binding, <em>etc.</em>, on goods, <em>etc.</em></td>
<td></td>
<td>25</td>
</tr>
<tr>
<td>During shunting operations</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Miscellaneous accidents</td>
<td></td>
<td>33</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>260</td>
</tr>
</tbody>
</table>

## LOCOMOTIVE AND CARRIAGE DEPARTMENT

<table>
<thead>
<tr>
<th>Description</th>
<th>Killed</th>
<th>Injured</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accidents due to neglect</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Accidents due to want of care</td>
<td></td>
<td>19</td>
</tr>
<tr>
<td>Accidents due to breaches of rules</td>
<td></td>
<td>11</td>
</tr>
<tr>
<td>Slipping off engines, ladders, <em>etc.</em></td>
<td></td>
<td>128</td>
</tr>
<tr>
<td>Articles falling whilst being handled</td>
<td></td>
<td>52</td>
</tr>
<tr>
<td>Struck by chippings, <em>etc.</em>, from other men’s work</td>
<td></td>
<td>54</td>
</tr>
<tr>
<td>Gauge glasses bursting, and other causes beyond injured men’s control</td>
<td></td>
<td>25</td>
</tr>
<tr>
<td>Pinched by materials, <em>etc.</em>, being handled</td>
<td></td>
<td>18</td>
</tr>
<tr>
<td>Scalded by hot water from injectors, and burnt by coming in contact with hot plates, <em>etc.</em></td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>Through hand brakes flying off</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>By breakage of tools, <em>etc.</em>, in use</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Strains and other injuries while lifting or pulling materials, <em>etc.</em></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>332</td>
</tr>
</tbody>
</table>
### Engineering Department

<table>
<thead>
<tr>
<th>Event</th>
<th>Killed</th>
<th>Injured</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knocked down by rolling stock and in connection with the movement of vehicles</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Loading, unloading and stacking timber</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>Loading, unloading and stacking rails</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td>In connection with the use of trolleys</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Struck by chips of metal and stone</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>Falling over point rods, signal wires, etc.</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Falling from roofs, ladders, and scaffolding</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Stumbling or slipping while walking on line</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Miscellaneous: cuts, bruises, sprains, strains, etc.</td>
<td>103</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>2</td>
<td>183</td>
</tr>
</tbody>
</table>

### Signal Department

<table>
<thead>
<tr>
<th>Event</th>
<th>Killed</th>
<th>Injured</th>
</tr>
</thead>
<tbody>
<tr>
<td>Want of care in using tools, etc.</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Unavoidable causes in connection with the use of tools, etc.</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>During lifting and lowering materials, etc., unavoidable</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>During lifting and lowering materials, etc., by want of care</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Injured by moving machinery—unavoidable</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Injured by moving machinery—by want of care</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>By falling</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Injured through “larking”</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>25</td>
<td></td>
</tr>
</tbody>
</table>
One Month's Personal Accidents on the Great Western Railway
(Continued).

GENERAL SUMMARY.

<table>
<thead>
<tr>
<th>Department</th>
<th>Killed</th>
<th>Injured</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passenger department</td>
<td>4</td>
<td>134</td>
</tr>
<tr>
<td>Goods department</td>
<td>-</td>
<td>260</td>
</tr>
<tr>
<td>Locomotive and Carriage department</td>
<td>-</td>
<td>332</td>
</tr>
<tr>
<td>Engineering department</td>
<td>2</td>
<td>183</td>
</tr>
<tr>
<td>Signal department</td>
<td>-</td>
<td>25</td>
</tr>
</tbody>
</table>

| Total                              | 6      | 934     |

Just imagine what these lists represent in pain, sorrow, and distress. And, don't forget, they're the records for only one month! But put away your sympathy for a minute. That's not what we're after. We're trying to make you realise the need for thinking of your own safety. We want you to look after yourself. Let every reader do that. We're asking YOU to adopt the "IS-IT-SAFE?" habit. Look at it this way: work this out by the law of averages: If so many men get injured on this railway in a month, how long will it be before your turn comes? It is pretty clear that you'll have to be more careful than some of the others, if you're going to escape for long, isn't it? And how are you going to take the extra care? Getting into the "IS-IT-SAFE?" habit is one way. It's the easiest and the best way we know of.
YOU are earnestly invited to help in THE "SAFETY" MOVEMENT. Perhaps you have an idea for inducing men to adopt and maintain the habit of avoiding risks of injury. If so, write at once to the head of your department.