

Distress Signals.

The Board of Supervising Inspectors of Steam Vessels, at its annual meeting held in Washington, D. C., January and February, 1894, recommended the following distress signals:

DISTRESS SIGNALS RECOMMENDED BY THE BOARD OF SUPERVISING INSPECTORS.

Article 31. (Prescribed by International Marine Conference, 1889.)

In the daytime—

1. A gun fired at intervals of about a minute.
2. The International Code signal of distress indicated by N. C.
3. The distant signal, consisting of a square flag, having either above or below it a ball or anything resembling a ball.
4. Rockets or shells as prescribed below for use at night.
5. A continuous sounding with a steam whistle or any fog signal apparatus.

At night—

1. A gun fired at intervals of about a minute.
2. Flames on the vessel (as from a burning tar barrel, oil barrel, etc.)
3. Rockets or shells bursting in the air with a loud report and throwing stars of any color or description, fired one at a time at short intervals.
4. A continuous sounding with a steam whistle or any fog signal apparatus.

All officers and employes of the Life Saving Service will hereafter recognize any of these signals when seen or heard as signals of distress and immediately proceed to render all possible assistance.

Supreme Court Telegraph Decision.

A decision of importance relating to the liability of telegraph companies in sending messages has been made by the Supreme Court of the United States. The court decides that the Western Union Telegraph Company is not liable in damages to the sender of a message in cipher for errors in transmission thereof. The case came up from the Circuit Court of the United States for the Eastern District of Pennsylvania, where Frank J. Primrose sued the telegraph company for \$100,000 damages for mistakes in sending a cipher telegram from Philadelphia to Waukeeny, Kan. The message related to a transaction in wool, and the mistake, Primrose claimed, damaged him in the sum named. Judge Butler nonsuited the plaintiff in the Circuit Court on the ground that the conditions of the contract printed on the back of the telegram absolved the telegraph company from liability for errors by transmission, unless it specially insured correctness. This contract was held to be a reasonable one. Justice Gray read the opinion of the court affirming the judgment of the Circuit Court. The case has been pending in the Supreme Court since 1879.

People of ordinary intelligence not educated in the mysteries of the law will wonder why great trusts like the Western Union Telegraph Company should be exempted from responsibility for their carelessness and blunders. The Supreme Court practically holds that if you want to have your message sent correctly, you must pay double price. But if you want the telegraph company to make blunders for which you have no redress, you pay single fare.

On the same principle it would seem as if railway companies might adopt a double fare scheme, by which, unless passengers pay specially for insurance of safety, the companies will escape liability for broken limbs and other damages. All the companies need do is to print the little trick on the back of their tickets.

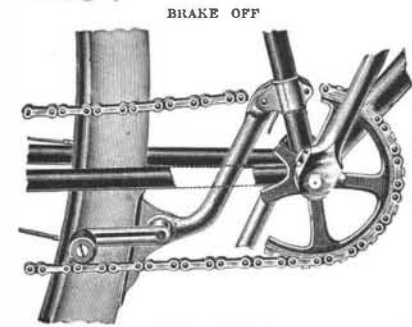
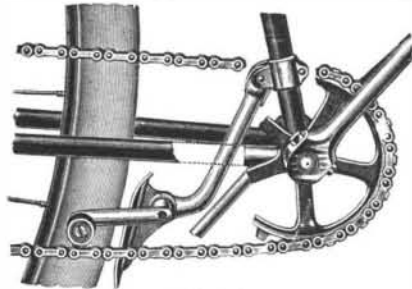
CHAIN LINKS DROP FORGED FROM BAR STEEL.

Our illustration shows three views, fully explaining the construction of an improved patented drop forged steel link recently placed on the market by the Philadelphia Drop Forge Company, No. 2350 American Street, Philadelphia, Pa. These links can be applied by hand, without the use of any tools, and being strong, light and compact, can be carried conveniently, are always ready for instant use and invaluable to users of chains of all kinds for mending, splicing and connecting same. Each link is accurately fitted, securely riveted, neatly finished and packed in boxes of one dozen of a size. The sizes now made up are $\frac{1}{4}$ inch, $\frac{3}{8}$ inch, $\frac{1}{2}$ inch, $\frac{3}{4}$ inch, and $1\frac{1}{2}$ inch, but the company expects to manufacture larger sizes as the trade may demand. As may be seen, the links are composed of two centrally pivoted halves, which are drop forged from bar steel, and whose inner faces are each provided with a lug and recess, so that when closed for use the lugs on the faces enter the recess on the opposite sides, thus bringing the parallel faces of the lugs in contact and preventing the ends of the links from spreading or being forced open. The company also makes standard and special forgings of every description from iron, steel, copper, aluminum, and other suitable metals. On application the company will

forward catalogue and price list of the Keystone open links and of their standard drop forgings, such as straight and eye-shank hoist hooks, single and double ended machine and spanner and tool post wrenches, collars or bushings, thumb screws and nuts, machine handles and eye bolts, also of standard and special bicycle forgings.

THE BAILEY AUTOMATIC BICYCLE BRAKE.

In all of the safety bicycles, when the wheel is being propelled forward, there is noticeable a slight slack in the lower reach of the chain, which is instantly taken up by the instinctive reverse pedaling



THE BAILEY BICYCLE BRAKE.

of the rider desiring to "slow down" or stop, or in descending a hill, the lower reach of the chain then becoming taut. This straightening of the lower portion of the chain effects the automatic application of the brake shown in the accompanying illustration, where one of the figures represents the brake off, another shows it applied, and the third shows the brake and its accompanying parts separate from the wheel. The improvement is a patented device of the Bailey Manufacturing Company, of No. 207 South Canal Street, Chicago; it weighs but a trifle, is not displeasing in appearance, and is designed to be in no way an inconvenience to the rider at any time. When the clamp, 1, is attached to the seat standard, the adjustable stop, 2, is set so that the roller, 6, will just clear the chain when the brake is not in use. The parts, 3, 4 and 5, are readily adjustable at any required angle, and washers are employed in setting the roller out toward the pedal or in toward the wheel. The attachment is nicely finished, durable and will fit all safeties.

Influence of Weather Upon Mind.

A writer in the January number of the *American Journal of Psychology* for this year discusses the sub-

ject from the view of common experience, and presents some facts that are interesting as well as leading in their directness. He says:

"The head of a factory employing 3,000 workmen said: 'We reckon that a disagreeable day yields about ten per cent less work than a delightful day, and we thus have to count this as a factor in our profit and loss account.' Accidents are more numerous in factories on bad days. A railroad man never proposes changes to his superior if the weather is not propitious. Fair days make men accessible and generous, and open to consider new problems favorably. Some say that opinions reached in best weather states are safest to invest on."

Other facts are mentioned in the psychological and physiological relation, as "Weather often affects logic, and many men's most syllogistic conclusions are varied by heat and cold. . . . The knee jerk seems proved to have another factor. It is not strange if the eye, *e. g.*, which wants the normal stimulus in long, dark weather, causes other changes."

Temperament is a fundamental factor in sensitiveness to atmospheric changes, that type of it called the mental being the more intensely affected, while the bilious type may exhibit by comparison the more capricious or morbid impressions. The mental manifestations, as a rule, however, depend upon the organism primarily. If the culture is good, *i. e.*, the faculties have been trained to co-ordinate, harmonious action, and the elements that contribute to serenity and self-control have been well developed, weather conditions will but operate like other parts of the environment, the self-training will show adaptation and self-repression. The "nervous," excitable, irascible person is he who has not learned to control feeling and expression, and it is he who finds fault with his surroundings and imputes uncanny conduct to them. That there are functional states of the body that predispose one to mental depression or exhilaration, we are ready to admit. A torpid liver, a chronic catarrh, a rheumatic joint, and even an old corn may render one susceptible to weather changes, the physical ailment producing a nerve reaction that is keenly felt at the spinal centers, and may test the spirit.

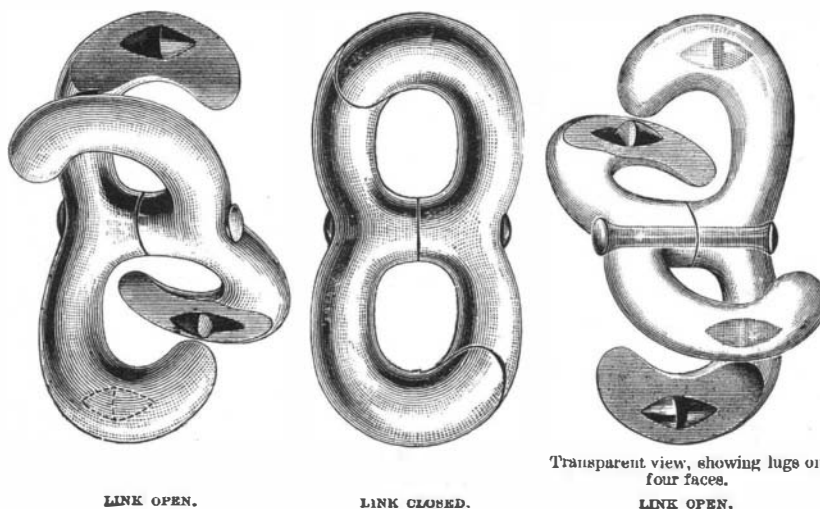
Mind, however, is superior to matter, or rather constituted for superiority. Fairly organized, carefully developed and trained, it will exhibit that superiority by its poise and calmness in circumstances that are disagreeable or painful to the physical senses.—*The Phrenological Journal*.

Jerusalem.

The British consul at Jerusalem, in his latest report, gives some interesting details respecting the state of the Holy City. It appears that buildings of various kinds continue to be erected in the vicinity, and that the city is far outgrowing its former limits. On the western side houses have increased so rapidly within the last few years that quite a large suburb has arisen where formerly there were fields and vineyards. Every available piece of land is now being bought up by private persons or by benevolent societies and missions, and already the name of "Modern Jerusalem" has been given to this new quarter. Last year the first public garden was completed outside the Jaffa Gate, and the trade is generally increasing, especially that in Jaffa oranges, olive wood work (now an important local industry), and olive oil. The export of colocynth declined in consequence of a tithe levied on it by the authorities. It is gathered by Arabs in the neighborhood of Gaza, where it grows wild. An interesting enterprise which has recently been commenced is the collection of the bitumen which rises to the surface and floats about on the Dead Sea. Two sailing boats were taken by train from Jaffa to Jerusalem, and then conveyed on carts to the Jordan, where they were floated down the river to the Dead Sea, and they are now engaged in picking up the bitumen, which is in much request in Europe. The consul thinks it would be advantageous to trade with the inland districts if a steam launch and several lighters were placed on the Dead Sea to ferry across the produce of Moab, which is a country rich in cereals, fruit, and cattle. At present it is conveyed by caravans round the north or south end of the Dead Sea, entailing a journey of from four to five days. Kerak, the chief town of Moab, is now garrisoned with Ottoman troops, and authority is established there, so that if rapid communication were established, the whole produce of Moab would find its way to Jerusalem and the coast.

Concrete Roofs.

Flat roofs have several advantages, and can conveniently be constructed of concrete, with iron or steel girders at intervals. If the under side of the concrete has to be the ceiling of the room below, it may be desirable that it should be quite flat. In this case, the necessary falls and gutters can be formed with rough concrete laid on the top of the main body of concrete. The best material for finishing such roofs externally is asphalt.



THE KEYSTONE DROP FORGED CHAIN LINKS.