RECENT AMERICAN INVENTIONS.

The following are some of the most important improvements for which Letters Patent were issued from the United States Patent Office last week. The claims may be found in the official list on another page :

Fence.--This invention consists in arranging the uprights on the ends of the panels of a fence in such relation to the longitudinal rails that they project beyond the ends of those rails which are secured to them, and that they catch over the ends of the rails of the adjoining panel, leaving an open space between the adjoining ends of longitudinal rails, whereby the fence is enabled to adjust itself to uneven ground ; it consists further in the employment of gibs and keys passing through mortises in the uprights and between the ends of the longitudinal rails in such a manner that the panels are firmly secured, and, at the same time, they are not prevented to follow the inequalities of the ground ; it consists further in the arrangement of notches in the upper ends of the braces to catch into notches in the lower edges of the upper rails, together with notches in the edges of said braces catching over the upper edge of the second rail from the top, so that said braces are firmly retained without the use of nails, and that they steady the fence in the most perfect manner. Invented by William Gibson, of Fort Wayne, Ind.

Percussion Projectiles.--This invention, by C. W. Isbell, of New York city, relates to explosive projectiles of elongated form, to be exploded by the act of striking. Its principal object is so to apply a percussion apparatus in such a projectile as to enable it to be made solid at the point or end which strikes, and another object is to enable the projectile to be transported ready primed without danger. It consists in the attachment of the hammer of the percussion apparatus to the rear portion or breech of the projectile by a device which holds it back until the discharge of the projectile from the gun : also in so constructing and applying the said device for attaching the hammer to the rear portion or breech of the shell that it may be caused to liberate the hammer by the driving forward of the rear portion of the projectile relatively to the front portion thereof, by the act of discharging the projectile from the gum, the hammer, when so liberated, being held back by inertia, until the projectile strikes, when the momentum carries it forward and causes it to explode the percussion priming.

Paper Folding Machine.--The object of this invention, patented to Lewis E. Osborn, of New Haven, Conn., is to obtain a machine which will be capable of being applied directly to a printing press, and operated automatically therefrom, receive the printed sheets from the press and discharge them in a folded state, the sheets being folded one or more times—that is to say, in folio, quarto, octavo form, &c., as may be desired. The invention is more especially designed for folding newspapers for mailing, but may be advantageously used for folding other printed sheets. The invention consists in the employment or use of one or more pairs of rollers provided with fingers or nippers and conveying tapes, in connection with adjustable holding tapes, one or more feeders fitted in the fly, and in a feeding frame. All arranged so as to effect the desired end.

Mode of Making Baskets.—The object of this invention is to facilitate the construction of baskets so that the same may be constructed not only in a more expeditious manner than hitherto, but also of any desired dimensions, so that they may be made accurately to a gage, and serve as measures of capacity. To this end, the invention consists in the employment or use of a block or former provided with guides, cords and gage measures or marks, over which the basket is formed or made. Invented by J. D. and J. T. Shuler, of Lockport, N. Y.

Spinning Frames.--This invention relates to the use of front drawing rolls having an intermitting action for the purpose of allowing the twist to run back from the spindles to the delivery rolls, and it consists in an apparatus for preventing the strain arising from the draft of the bobbin or spindle from acting injuriously on the twisted yarn above the said drawing rolls, such apparatus consisting principally of two surfaces, between which the yarn passes, and one of which moves toward and from the other, to seize the roving or yarn before each intermission in the action of the drawing rolls takes place, and liberate it immediately after the resumption of the action of the rolls. Patented to John H. Bloodgood, of New York city.

Wad for Ordnance.--Elijah D. Williams, of Philadelphia, Pa., is the inventor of a wad composed of two or more concavo-convex disks of metal, each having a series of radial or nearly radial openings so arranged with respect to similar openings in the other or others that the metal of one covers the openings in the other, such wad being constructed of such diameter relatively to that of the bore of the gun in which it is to be used that it will pass easily through the bore in loading, but that the explosive force employed in ramming the charge home, or both of these forces will act upon it to change its concavo-convex form to a plane or a form approximating nearer to a plane, by which it will be spread laterally, and caused to fill and close the bore between the powder and the projectile, in such a manner as to prevent all escape of gases and obtain the application of the entire explosive force of the powder to the projection of the projectile, and in such a manner that in rifled arms it will be caused to receive and impart to the projectile a rotary motion.

Ships.—This invention consists in compensating for the loss of buoyancy at the bilge of a vessel, consequent upon its rotundity, by commencing the bilge lower down the sides, and extending it below the usual base line to any point not below the bottom of the keel, but below a horizontal line with the top of the keel, the principal object being to prevent rolling. The U. S. steam gunboat *Pawnee* is built according to this patent, which was obtained by John W. Griffiths, of Philadelphia, Pa.

Spinning Frame —This invention relates to the combination of drawing and twisting mechanism to produce draft and twist simultaneously in the same portion of the roping or yarn. It consists in a certain novel system of drawing mechanism applied directly to the spindle of a spinning frame, whereby the simultaneous draft and twist are obtained with a more simple construction of the machinery than heretofore. W. T. Abell, of Vernon, Iowa, inventor.

Wisconsin Inventions---Improvements in Railroad Brakes.

We copy the following article from the *Daily Wisconsin*, published at Milwaukie. The inventions described have been secured by patent through the Scientific American Patent Agency, and we expect soon to illustrate them in our columns :--

We had the pleasure of witnessing, on the evening of the 7th, at his room in the Newhall House, some of the inventions of Mr. A. I. Ambler, of this city, in connection with railroad braking, which promise great benefits to railroad interests, and great pecuniary advantage to the inventor and those connected with him in the enterprise.

These inventions, which are patented in the United States and in the principal countries in Europe, consists of a brake, a coupler, an improved shoe and an indicator, all for railroad cars.

We cannot, in this article, give a description of these inventions, or set forth all their merits. We will simply state that they dispense with all brakemen on passenger, freight and mixed trains, and place the whole braking power in the hands of the engineer, to whom it properly belongs.

By the use of these inventions, the engineer can obtain the maximum of power with perfect uniformity of pressure, and continuity of action upon every wheel throughout the train, in two seconds of time, thus bringing a resistance to the momentum, so perfectly and mechanically distributed upon every car, as to secure the almost instantaneous stopping or braking of the train. This is, however, effected without any injury to the machinery or train, so perfect is the arrangement to this end. The braking can be done by hand, by momentum, or by steam, as may be desired. It may be proper also to state that the whole train can be stopped by hand from any given car in the train, and any separate car in the train can be stopped by hand, without interfering with the means by which the continuous braking is effected.

These inventions accomplish three things never before attained in car braking—continuity of braking by one man, simultaneous action and perfect uniformity of pressure on all the wheels in the train.

Mr. Ambler has some nine different combinations, all based upon the same general principle, for operating the brakes, seven of which are completely shown up by models of 35 inches in length, and coupled together in a train, each model showing a different method of operating the brakes.

From the fact that these brakes dispense with all brakemen, prevent the wheels of cars from sliding on the track, bring the whole face of the shoe upon the wheels and prevent unequal wearing, increase the frictional surface of the shoe upon the wheel by a new and simple device, and enable the engineer to put all the braking power of the train upon the wheels, in the same time that would be required to signal the brakeman in the ordinary method of braking, we are convinced that they will be an immense saving to railroad companies, and afford great additional security to life and property. When railroad managers shall have examined these inventions, and made themselves acquainted with their simplicity, economy and efficiency, they cannot do without them, but must bring them into general use.

Their leading characteristics are, continuity, simultaneousness and equality, as well as efficiency, economy and safety.

Mr. Warrick Martin, well known in Milwaukie as the successful prosecutor in the large case of Martin against Brooks, in the District Court of the United States, owns one-third of all of these inventions ; and has the financial and business control and management of the whole. The parties contemplate putting these inventions on a train of cars in Chicago soon, when those interested in railroads and the public will be invited to witness their operation.

THE LOCOMOTIVES IN INDIA.--The London *Engineer* says :—The opening of the railway from Umritsir to Lahore, at the beginning of last month, seems to have excited interest among the Punjabees even more intense than that felt by the Bengalees in 1854. Day after day thousands congregate, from the most distant places, to see the *Lawrence* locomotive come into Umritsir. Its fame has spread to the Peshawur and Mooltan frontiers. Some daring spirits insist on a ride on the "fire horse," just as the Bengalees used to crowd round to examine the new "car of India," and would not be convinced of the danger they incurred till a cow was killed straying on the line. A Brahmin, looking on the locomotive at Umritsir, remarked, "All the incarnations of all the gods in India never produced such a thing as that. By this time the news has been carried by the trading caravans into Cabul and Central Asia, and so our prestige increases.

The Greatest Field for Inventors.

MESSRS. EDITORS :--The people everywhere, and especially those of the cities and villages, are asking for cheap light ; and the inventor of any improvement for the burning of the coal oils, that are now so cheap—an improvement that would take the place of gas for parlors and halls—and also a lamp for movable purposes—some contrivance that would be at once cheap, convenient, simple and easily kept in order—would be entitled to the thanks of all the world, and would reap to himself a golden harvest. No richer field was ever offered to inventive genius. Something is wanted that, by its completeness and adaptability, will at once compete with the gas monopolies. X.

ELECTRO-PLATING IRON WIRE.—To prevent iron wire from rusting, it is proposed to coat it with copper at one continuous operation, by running it off one reel and taking it upon another, drawing it through, at the same time a depositing trough containing a solution of the sulphate of copper. The wire is first scoured bright and then passed over a grooved metal roller in the trough connected with the pole of a battery, where it is drawn slowly through the bath upon a wooden roller, and is thus electro plated.

A LETTER from Trieste states that the iron-cased frigate *Salamander* was launched there recently, and was to be immediately fitted out. She is the first vessel of the kind in the Austrian navy. Two floating batteries, the *Peiho* and *Palestro*, will be launched at Rochefort this month, and experiments are about to be made of a formidable cylindro-conical projectile, of which much has been said.