## A YANEEE PIE FACTORY.

He who strolls along the streets of this great metropolis sees pies to the right of him, pies to the left of him, baked and delivered. But to him a pie is a pie, and be never reflects upon the energy, enterprise, and capital required to make pies for the people. When the housewife makes a weekly batch of pies, she has her hands full. What shall be said of the concerns who make, daily, pies for a whole cits? Whose calculations are all pic ; whose thoughts are on pie; the very end and aim of their existence being to turn out as many pies as possible. One manufacturer in this city makes from 35,000 to 40,000 pies per week-this is Lir. O. Hopkins, of 420 Sixth avenue. He occupies fonr buildings on the thoroughfare in question, and has ten horses and wagons engaged in delivering his pies about the city .
tire outside of thie pies.
Everyboly knows what the outside of a pie is-it is flow, water and shortening, or butter. These materials are kneaded into a paste, rolled out thin, and spread over the contents of the dish. In Mr. Hopkin's factory one man stands before a mound of paste which he can scarcely see over; this he manipulates and stirs about after the most approved fashion, and hands sundry portions of it over to the rollers that stand beside him. He twists off a modicum about as large as a man's fist, which a busy youth beside him rolls out into a large flapping disk of paste. This disk is unceremoniously tossed over to women opposite, who have pie dishesbefore them ready filled. The crust is spread neatly over a dish, trimmed off quickly on the edges and passed to the baker. Eight or ten individuals are continually rolling pie-crust, and it is needless to say that in this branch of the business they are exceedingly dexterous. Long practice has made them familiar with it, and they roll as the sea rolls, monotonously aud forever.
THE INSIDE of TIE FIE.

We stated that every one knew what the outside of a pie was but few of us know what is inside. In mince pie, for instance, we are pleased to have an intimate personal knowledge of the maker, for there are opportunities in the construction of this pie for the insertion of meats which are not acknowledged articles of diet. Mr. Hopkins's mince pies are made from the best fresh beef, bought daily from a neighbor and cooked and minced under his immediate supervision. The apples are smooth, round, handsome fruit as one could wish to see, and the whole of the operations are carried on with much neatness.
For pies other than mince, the fruit, in the case of pumpkin or apple, is cut up and stewed, and afterwards passed through a collander to reduce it to a fine consistency. Each pie has an equal quantity in it measured by a dipper, and great tubs full of stewed fruit of various kinds stand ready for the fillers. The baker stands before his oven continually putting in or taking out pies, and all clay long the pastry is passing through his hands, The city swallows them as the oven disgorges them, and from the furnace mouths to the throats of the populace there is but a brief period. The ovens hold 150 pies at a charge, and as many as 48 orens' full have been haked daily. materlals thed.
Of course to the statistician this article would be very iucomplete without some figures. Here they are then :-Of flour there :ure 80 barrels per week used; of beef, $3,000 \mathrm{lbs}$. per week; in mince-pie season, of lard, $3,500 \mathrm{lbs}$. per week; of sugar $3,000 \mathrm{lbs}$.; milk, 2,400 quarts per week. The other supplies, such as fruit, are immense, and are not reckoned by us. There were barrels of apples and pumpkins in one room awaiting their fate, and the piles of peach boxes told plaiuly of what had been and passed away.
The season governs the kind of pie most in demand. Of course, in summer, fruit pies are in request; in the fall, pumpkin and apple; in the winter, mince and dried fruit pies, and so on. Fourteen different kinds are made, and each is numbered in order, so that by looking at the number the customer can tell the kind of pie.

It must be borne in mind that the factory is not the only one of the kind in the citr, but it is the largest. We are told that in the several establishments 36,000 pies are made daily. From these figures the reader can form some idea of the enormons consumption of this article of food.

## RECENT AMERICAN Patents.

The following are some ot the most important improvements for which Letters Patent were issued from the United States Patent Office last week; the claims may be foand in the official list:-
Supporter for Fractures.-The object of this invention is to relieve a fractured leg of the weight of the body and to enable a person, as soon as he or she is able to hold the foot down, to walk about without crutches, and to follow his or her usual avocations without danger; and to this end it consists in a supporting rod, secured to the upper and lower portions of the limb b? suitable clamps, jointed at the knee and furnished at the bottom with a foot-piece to boar on the ground, and at the top with a pad piece which comes under the buttock and supports the body at that point. The great advantage of the supporter is apparent from the following extract from a letter of the inventor, D. H. B. Allen, of Chelsea, Vt.:-" On the 16th of October last my leg was broken; the large bone twice, a piece about three inches long being displaced or driven back at least an inch. The small bone was broken once. I invented and completed the supporter in about twelve weeks ; I could have used it much sooner bad it been completed. The first week of its use I went up and down a ladder to get hay and grain as usual. About the middle of February you saw me at your office some three hundred miles from home. In March and April I made some 400 lbs . of sugar, wearing the supporter till June. Since then I bave hal no use for it, and do not even use a cane. My weight, as you saw me was about 223 lbs, my age fifty-one years."
Stone-breaking Device.-This invention relates to a new and improveddevice for breaking rocks, and is more especially designed for crushing gold-bearing quartz, reducing the same to quite fine particles, like fine sand, so that the latter will be in a favorable condition to be crushed and have the gold separated from it by amalgamation by any approved device or process. The invention consists of a crusher composed of a stationary and a movable or oscillating jaw, the stationary one having a single plane surface and somewhat inclined, and the oscillating jaw, haviug two plane surfaces, oue being above.the other with a concave surface between them, the flacrom pin of the oscillating jaw being in a line central with the concave surface, and all arranged in such a manner that a double-crushing operation is performed by the same pair of jaws, the rock being cracked by one operation and reduced to the fine state by the other. A. W. Hall, of New York city, is the inventor.

Lining for Faucets.-This invention relates tocertain improvements in the construction and manufacture of faucets, in which the shell or body is packed or lined with elastic material for the purposes of obviating the necessity of fitting and grinding the plug and producing an article more durable and at a less cost to manufacture than the ordinary faucets constructed to work with metal surfaces in contact with each other, and consists, first, in an improved method of molding or preparing the !cork linings with the least possible waste of material, and in such a manner that they can be iuserted in the shell of the faucet without boring for the plug or further manipulation. Second, In an improved method of securing the prepared lining in position by casting a longitudinal projection or rib on the inside of the shell of the faucet in such manner that it forms an abutment at the joint of the lining, and prevents it from rotating or moving in a horizontal direction in the line of its circumference, and secures it in position without ribs or projections to indent the cork, or recesses in the wall of the faucet for the cork to fill by expansion or distension, and admits of brass faucets being cast in the ordinary manner of casting plain work, with a round and smooth-surfaced sand core. John Broughton, of No. 41 Center street, New York is the inventor.
Improved Propeller.-The object of this invention is to propel a vessel by the reaction of a stream of water issuing from orifices above the water line. The invention consists in the employment of rotary pumps applied on the sides of the vessel to be propelled, in combination with discharge pipes passing into pipes of a much larger diameter, which take water at the bottom of the vessel and discharge at its sides above the water line in such a manner, that the stream of water issuing from the discharge pipes acts on the
principle of an injector, and a volume of water is expelled from the large pipes much exceeding the volume which the pumps alone, unaided by the injectors, would be capable of expelling, and by the reaction of the water thus driven out of said pipes with great velocity, a power is obtained which will propel a vessel or aid in propelling it with a force which is entirely independent of the velocity with which said vessel moves through the water; the invention consists, further, in the employment of pumping cones with spiral flanges in combination with conical barrels open at both ends, and with pipes leading from the small ends of said conical barrels out through the sides of the vessel above the water line, in sucb a manner that by the aztlon of the spiral flanges a comparatively large quantity of water is gathered up in the large ends of the barrels and forced with great velocity out through the small ends of said barrels and through the discharge pipes, and the vessel is propelled by the reaction of the water issuing from said pipes; tine invention consists, finally, in the application of revolviug nozzles to the pipes through which the water is expelled, in such a mauner that by turning said nozzle the motion of the vessel can be reversed or stopped altogether without reversing or stopping the engine or motive power. Albert Pagenstecher, of Valparaiso, Chili, is the inventor.
G'ay Runner.-This invention consists in the application to a gag receiver of a simple button, in place of the loop generally used to fasten the same, in such a manner that when said button is passed through an appropriate hole in the gag-strap, it retains the gag runner securely in place, and at the same time allows the same to oscillate back and forth and to accommodate itself to the motions of the rein. Whalter Greacen, Newark, N. J., is the inventor.

Operating Street Cars.-The object of this invention is to construct a street car so that it will run on a track which is flush with the surface of the street and does not interfere with the travel of ordinary vehicles. The track best suited for this purpose consists of two flat plain side rails and a central rail with a narrow groove to secure the guide-wheels which are brought to the under surface of the platform of the car and connected with a suitable lever and hand-screw or any other equivalent device, in such a manner that the same can readily be depressed into or raised from the central guide-groove. The two levers which form the bearings for the axles of the guide wheels, are hinged to the brake levers, the outer ends of which form the nuts for the handscrews and said brake levers are conneeted with each other, or each with the opposite guide-wheel lever, or the two guide-wheel levers may be connected to each other by a suitable joint so that both are compelled to work simultaneously, and the driver at one end of the car is enabled to apply or take off both brakes or to raise and lower both guide-wheels without leaving his stand, and by the action of one and the same hand-screw or other equivalent device. Charles E . Willis, 27 Nassau street, New York City, is the inventor.

Relieving Slide Valves of Friction. -This invention cousists in the support of a slide valve in such manner as to remove the pressure and friction as much as practicable from its face and seat, by means of one or more gibs attached to the valve and working on a stationary slide or slides attached to the valve seat or chest, the faces of the said gib or gibs and slide or slides being of harder metal or material than the faces of the valve and seat. It also consists in a mode of lubricating the faces of the said gib or gibs and slide or slides. It further consists in a certain construction of the said gib or gibs, whereby the valve is lifted from or drawn back entirely out of contact with its seat whenever the pressure is shut off and the engine still kept running with the valve face and seat dry, as in the case of a locomotive descending a grade or running into station, and the valve is thereby caused to run without friction. Andrew Buchanan, of Brooklyn, N. Y., is the inventor of the above; the patent bears date Sept. 27, 1864.
VOLUMES III., IV., VII., AND X., (NEW SERIES) complete (bound) may be had at this office and from periodi. ca dealers. Price, bound, 8225 . per volume, by mail, 83 -which in. zludes postage. Every mechadic, inventor or artiann in the Cnlted states should have a complete set of this publication for reference VoLs. I., IL., V., FI. and JIII. are out of print and cannot be, rap

