

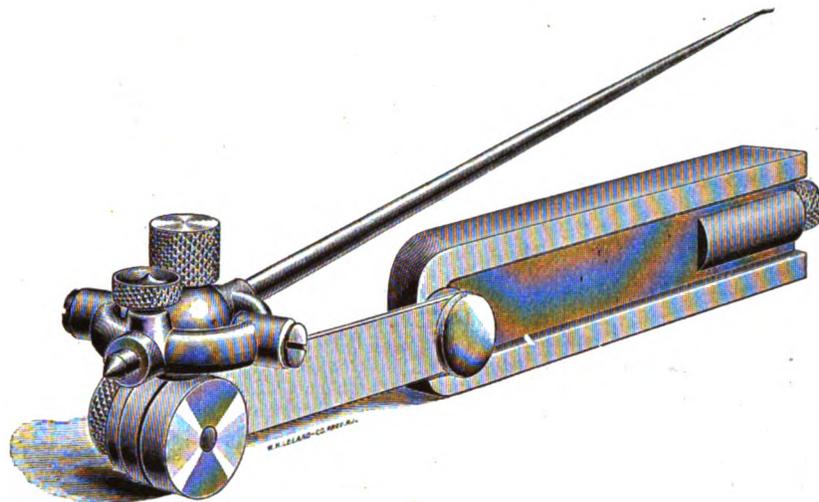
COMBINATION INDICATOR.

The combination indicator illustrated herewith is a tool designed for a center indicator, for testing the truth of work in the lathe from a center punch mark located thereon, also for a hole or shaft indicator, for testing the truth of a hole or shaft.

It consists, as shown in cut, of a holder to clamp in tool

impossible. With the needle furnished it magnifies about 12 times.

The holder and ring are malleable iron, nicely japanned, all other parts being finished. All necessary parts are hardened, making the tool durable, as well as neat looking, and convenient for its various uses. The tool is warranted well made in every respect.



COMBINATION INDICATOR.

post, to which is attached a flat spring by friction rivet. A partially split hub or nut is clamped to the outer end of spring by a vertical knurled screw.

This arrangement allows of clamping the vertical screw on its thread end, when side screw is tightened, so it will not become loose when ball is oscillating upon it.

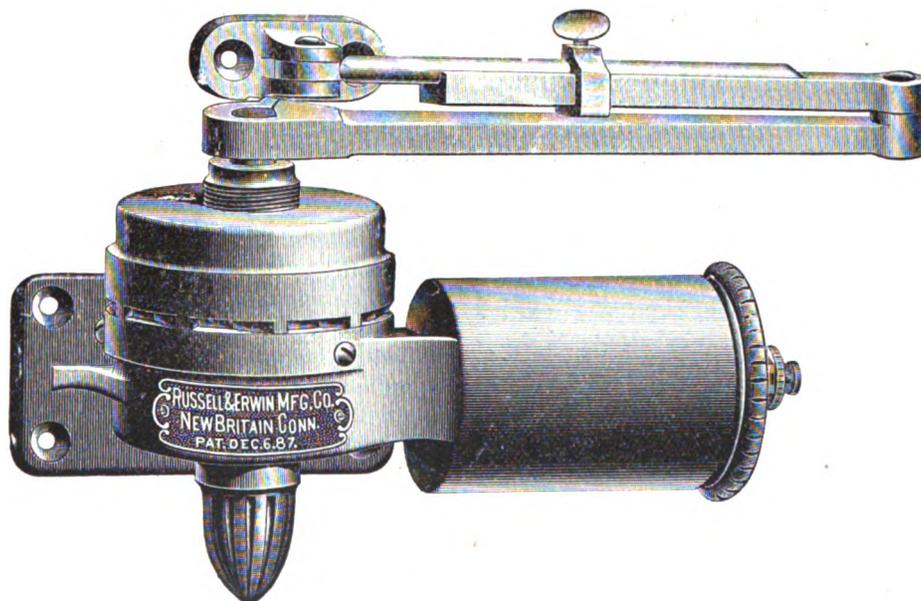
A ring in indicating needle is pivoted to the ball by two pointed screws, the whole completing a gimbal joint when vertical screw is sufficiently loosened to allow the ball to oscillate, but when vertical screw is tightened, it clamps the ball to the split nut fast, and then the needle can only oscillate vertically, which is for the shaft or hole feature.

A bent tip is furnished for use when the tool is used as a shaft or hole indicator, which can be quickly substituted for the center shown and may be kept, when not in use, in a hole

Manufactured by J. T. Slocomb & Co., Providence, R. I., who will furnish any further information on application.

COLUMBIA PNEUMATIC DOOR SPRING AND CHECK.

The Russell & Erwin Manufacturing Company, New Britain, Conn., and 43 47 Chambers street, New York, have just brought out the Columbia pneumatic door spring and check, here illustrated. Compressed air is used as a checking force, obviating the use of fluids and liquids. It is made in five sizes, Nos. 450 to 454, inclusive. Among the advantages to which the makers call especial attention are compactness, simplicity and strength, combined with ease of application and facility with which it may be regulated to overcome varying resistance, atmospheric or other. Unnecessary tension on the spring is obtained by winding up the spring



COLUMBIA DOOR SPRING AND CHECK.

provided for the purpose in back end of holder. The tips being made of standard 5-32 steel wire, and held in the tool by a knurled thumb screw, a special shaped one may be readily made to suit the work in hand, if required. The flat spring besides making the tool sensitive as a center indicator, so as not to damage the center in work, or accidentally drop out, is of great advantage in enabling the correct vertical adjustment being made independent of the tool post, without which for the shaft or hole feature, in many cases, would be about

box with a spanner wrench furnished for that purpose. The speed is regulated by means of the vent screw and check nut on end of cylinder. The arm at the top can be lengthened or shortened by the use of thumb screw. This door check and spring can be used on right and left hand doors, and is recommended by the manufacturers for front, storm, corridor, office, basement, butler's pantry and apartment house doors, etc. They are put up regularly gold bronzed, but will be supplied in other finishes if so ordered.

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CHICAGO JOURNAL OF COMMERCE.

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THE CHICAGO JOURNAL OF COMMERCE takes an earnest interest in the progress of every manufacturing industry and the development of every natural resource of the country related to Iron and Steel, Raw Material, Manufacturing, Engineering, Mining, Railroads and Transportation, and has a very wide bona-fide circulation among these industries, Manufacturers, Hardware Dealers, Machinists, Master Mechanics, Railway Purchasing Agents, Miners and Capitalists, and offers the best medium for advertisements in the West.

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A SAMPLE COPY.

If you receive a sample copy of THE CHICAGO JOURNAL OF COMMERCE, and are not a subscriber, you may conclude that it is sent as a sample copy, and we respectfully ask you to give it a careful examination, believing that after you have done so you will be so well pleased with it that you will want to receive it regularly, and, if an advertiser, will desire to use it as a medium to make your firm and products favorably known to the thousands who are its constant readers.

Sample copies sent free of charge, post paid, to all parts of the world.

NOTE.—All new subscribers, whose names are accompanied by \$2.00 cash, will receive THE CHICAGO JOURNAL OF COMMERCE during the balance of 1896 and until January 1, 1898.

Manufacturers, hardware dealers, engineers, machinists and others are invited to make use of the columns of The Journal of Commerce in seeking or imparting information containing subjects referring to the West's industries and their development. Correspondence upon all subjects of Western trade and how to advance the interests of the Western states will secure prompt and careful attention at this office at all times.

ALL the indications in the Mahoning Valley point to the presence of the great business revival that has so long been anticipated. Manufacturers and merchants have more confidence, workingmen are elated over the prospects of steady work for four years, while every one in general seems happy because the index finger of trade points towards prosperity. Such reports as the following just sent out by a mammoth industrial concern, are no longer uncommon: "The situation has brought out numerous inquiries. So much, in fact, that we are not able to make tenders for all the work asked for. We will double our force within the next six weeks, and have already contracts for more work than we executed during the whole of last year." Chicago leads the active trend of industry by starting work this week on its harbor improvements, sea walls, half-million dollar pumping machinery and public and individual structural contracts, that mean much work and well-paid labor for many local mills for a long period ahead.

AT a meeting of the directors of the Omaha Trans-Mississippi Exposition last week, it was decided to hold the mid-winter session of the auxiliary Trans-Mississippi Congress at Salt Lake City. President Wattles has officially notified Secretary Carlisle that \$365,000 has been subscribed to the exposition fund, thus complying with the conditions surrounding the government \$200,000 appropriation. This guarantee clears the field for practical operations, and western industries feel that in encouraging the movement they are helping the district generally. The west is capable of vast growth, with resources scarcely yet primarily developed, and the duty now before its people is to follow out the proven principle that success depends on individual effort. The next few years, given honestly to the improvement of business conditions and to the advancement of all benefiting auxiliaries that deserve approbation, will enable us to make a great push forward in the path of progress. Interest along these lines should be steadily kept up. It is now the time of all times for business, and every popular project and every personal effort should win the exercise of those best energies that, in the west, have always meant final success and prosperity.

A SUMMARY of the report of National Commissioner of Labor just transmitted to the Secretary of the Interior, shows that in 1890 there were 22,750,000 people over 10 years old engaged in gainful occupations in the United States. Of these three and a half million persons were unemployed during some part of the year. Therefore 85 per cent had steady work. After deducting from the estimate, sailors, glass workers and others who follow occupations never giving employment the entire year round, it is calculated that not more than 336,000 persons were unemployed from seven to twelve months. More than that number have found employ-