

al watchmaker," and how he altered all my meshes, and ran them so deep that there was no shake between the teeth of the wheels and the leaves of the pinions, and I have also told that afterward a much stronger mainspring was necessary to make me run in this new condition, and how the strong mainspring broke my chain so often, which caused so much trouble and brought me into deeper disgrace. Now my depths, before this alteration, were as good as could be made. After twenty-five years of constant use they showed no signs of wear whatever, which was about as good proof as could be had that my pinions were well sized, the leaves well shaped, and also that the teeth of the wheels were of the proper form and acted at a suitable depth on the leaves of the pinions. Of course there was a little shake between them, which was both proper and necessary; but at one time this natural genius who repaired me had something to do with some special kind of mechanism where play in the teeth of the wheels was undesirable for the purposes the mechanism was used for, and he thought that the "back lash" in the teeth of my wheels was a serious error, and that I had been made by workmen that did not know any better, and convinced my owner that this was the cause of all the irregularities that he complained of.



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construction had been greatly improved by this natural watchmaker, but he was dissatisfied with me on account of my chain breaking so often and the natural watchmaker, to get rid of this difficulty, proposed to do away with my fusee and substitute a going barrel in its place. He said that the fusee watches were played out now, anyway; and, after complimenting my fine strong works, he said that all that was now necessary to make me a reli-"Hebrought out a copy of able watch was to put in a going a jeweler and watchmaker's barrel, and he brought out a copy of a jeweler and watchmaker's

My owner still thought that my

paper, which had something in it that supported his opinion. My owner consented to this proposal of taking out my fusee, and I was left to have the alterations made; but fortunately the genius was busy with other work and could not find time to do it while my owner remained in the place, and he concluded to give me another trial as I was.

On a certain occasion my owner was sojourning in a town m Northern Ohio, that bears the name of the author of the Declaration of Independence, where he was introduced to a watchmaker who had the reputation of being a very intelligent gentleman, as well as a skillful mechanic, which, in reality he was. I was shown to him, and my owner related all the trouble he had to get me to run regular. "Oh," said he, "I see what is the matter; the pivot holes all require to be inchased." And he easily persuaded my owner to have this done, telling him of what lasting benefit it would be to me. Now, is man had recently purchased a new Universal lathe, which ht that time, was his special hobby, and every watch that was brought to him had either to have the pivot holes inchased or some other work done to it that required the use of the



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new lathe. Even if only a glass was to be fitted the bezel had to be put in the universal lathe and the groove undercut. I got my pivot holes inchased, and, although I was not in any way damaged, the real cause of my irregularities was never looked into, and, practically, I was no better than before. My owner, however, had received a vast amount of information on every conceivable subject on which he chose to "start a sliver," and went away well pleased with himself and everybody else, and with the assurance that he was possessed of an excellent watch which was now in perfect

One day my owner was in New York city, and he took me to a place where they advised a new chain to be put in, and as large and as thick a one as my fusee would admit of was select

ed and put on, and after this I continued to run for quite a long time without it breaking; but my running gave my owner no better satisfaction, for the clocks in the different towns which he visited still continued to show different time from each other, and if by accident my hands agreed with one clock it was sure to vary with the next, and I got the blame of running irregular, and was regulated accordingly. During his travels my owner met with a watchmaker who said that I was not adjusted to positions; that if I was only adjusted to positions I could not help but run regular forever after. Now this was exactly what my owner wanted, so I was adjusted to positions. The plan of obtaining this adjustment was one that is followed by some watchmakers in London, and it consisted of turning away a part of my balance staff pivot at the ends nearest to the shoulder, so that there would be a less amount of the surface of my pivots bearing upon the jewels. I do not know whether this alteration would have had the anticipated effect or not, for the very same day that my owner got me back he was jumping off his wagon and the sudden shake, which never before used to do me any harm, broke both of my altered balance staff pivots; and my beautiful balance staff, so artistically made in every particular, was replaced by another watch. maker with a piece of round steel with pivots that looked like long centres on each end of it. In this condition I continued to run, but much worse than I ever did before; and at length my owner came to the town where the "natural watchmaker" resided, and I was again submitted to his tender mercies. He had made a new discovery since my owner was there before, which he was now practicing with great success. With reference to my fusee he admitted that so long as my chain was not breaking, the fusee did no harm, but he said that my "eyesock erizm" was in bad condition; that I would have to be "eyesockerized," and then everything would be right. make a long story short, my beautiful, hardened and tempered balance spring, that had its curves formed with the greatest possible amount of skill, so as to cause the long and short vibrations of the balance to be made in the same length of time, was bent and twisted about by this wretch most fearfully,