

the difficulty, such as suddenly to change an arrangement, which a stoppage or an accident on the railway would, in a moment, render necessary. Gentlemen, it would be of great advantage if we could attain a common German unity of time; for this, above all others, is the reckoning by 15th meridian east of Greenwich adapted. This meridian cuts through Norway, Sweden, Germany, Austria and Italy. By establishing the 15th meridian as a standard of reckoning there will arise at the extreme eastern boundary a difference of 31 minutes, at the western of 36 minutes. Gentlemen, in south Germany less differences have been easily accepted into customary use, and in America they have much greater differences.

Gentlemen, unity of time merely for the railway does not set aside all the disadvantages which I have briefly mentioned; that will only be possible when we reach a unity of time reckoning for the whole of Germany, that is to say, when all local time is swept away.

Against this project all sorts of prejudices now are felt by the public, I think wrongfully. Certainly, after due consideration, the scientific men of your observatories had given their authority against this spirit of opposition.

Gentlemen, science desires much more than we do. She is not content with a German unity of time, or with that of middle Europe, but she is desirous of obtaining a world time, based upon the meridian of Greenwich, and certainly with full right from her standpoint, and with the end she has in view.

Now, the opinion has been expressed that the introduction of this common time into citizen life would cause confusion. The inconvenience it would cause to manufactories and to industry is especially brought forward. In this relation I must turn to the earlier amplifications of our colleague, Von Strumm. If the difference of time from the 15th degree to some other place is known, for example to Neunkirchen (perhaps 29 minutes), it cannot be difficult to modify the regulations of the factory in accordance with it. If the manufacturer in March desires his men to begin at sunrise, so the regulations can establish 29 minutes past six. If he requires them in February at 10 minutes past six, so the regulations can name 39 minutes past 6, and so on.

How, then, will it affect the agricultural population? Indeed, gentlemen, the agricultural labourer does not pay much attention to the hour. For the most part he has none. He looks around to see if it is already light; then he knows that he will soon be called to work by the court bell. When the court clock goes wrong, which is generally the case—(merriment)—when it is a quarter of an hour too fast, then certainly he comes a quarter of an hour before the time to work, but by the same clock he leaves a quarter of an hour earlier, the duration of work remains the same. Gentlemen, seldom in practical life is punctuality asked in respect to minutes. In many places it is customary for the school hour to be put back 10 minutes, that the children may be present when the teacher arrives. Even the hour of the courts of justice is often put back so that the parties can assemble before the proceedings commence. It is inverted in the villages which lie near the railways. The rule is to put the clock forward some minutes so that the folk do not lose the train. Indeed, gentlemen, this difference often becomes an academic quarter of an hour, and sometimes becomes somewhat longer. (Merriment.)

We have not yet adduced the difference between the time of the sun and mean time. Herr Von Strumm is perfectly right that this difference of time