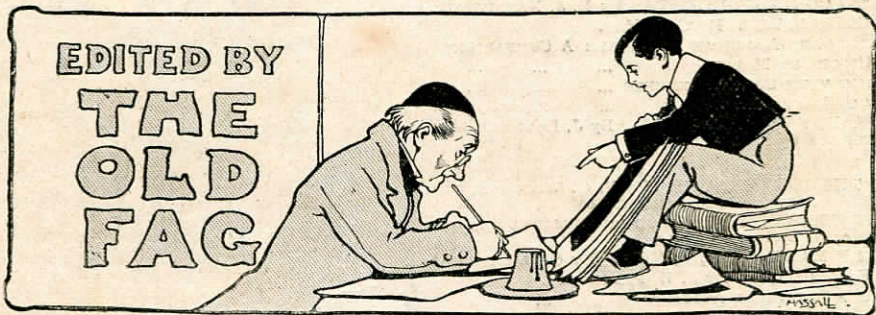


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THE COMING SHOWS.

AN

EXHIBITION has been rather aptly defined as a sort of demonstration of the world's progress since the previous exhibition was held. On a smaller scale, the same truth is

applicable to a cycle show. It is, from its very nature, a demonstration of all, or of most, that has been done by makers of cycles and cycle accessories since the time of the show preceding it. Personally, I delight in a cycle show, and every fellow who takes an interest in the mechanical side of cycling, as every cyclist should, ought to attend the nearest show available for as many of the days that it is open that he can possibly manage to put in. I generally study the London shows and several of the provincial ones, and have more than once gone abroad with a similar object in view. The Paris show used to be a splendid exhibition of what was being done on the Continent, and in America, too; but latterly it has sadly dwindled in importance, and at the present moment I cannot say whether it is at all likely to be representative of what the Continent can do. But whatever show you visit, it is well to have a systematic method before you, so as to be sure that you study it in the right way. I have

seen numberless people who seemed to be consumed with the idea that the only thing required of them was to collect as many catalogues as possible; and they would go home with all their pockets stuffed full with them, in the fond hope that at some time an opportunity would offer for careful study of their contents. The best way is to think as you go round, picking up only such literature as will remind you of something you have more than half learnt at the show itself, and then everything in your pocket will be of real value when you get home.

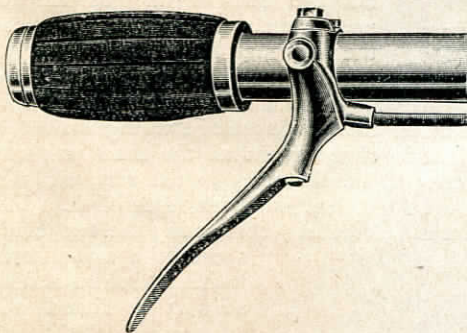
I propose to deal with a very few things that are sure to be shown at the shows, or very nearly sure. They may not all be novelties, for novelties in these days are chiefly confined to details, and such are not always of sufficient prospective profit to warrant those who exploit



CROSS FRAME RALEIGH LIGHT ROADSTER.

them in going to the expense of chartering a big stall. Of the old-established cycle firms there are few with any important novelty to offer. But any rider who will examine such exhibits as will be platformed by firms showing the Sunbeam, the Swift, the Rudge-Whitworth, the Bradbury, the Raleigh, or the Royal Enfield, will have the pleasure of seeing machines than which the world can produce no better. These are not necessarily the only ones that could be placed in a complete list of the wares that demand classification in the very first rank, but I name them because I am in direct communication with them on the subject of any novelties they may contemplate marketing, and because I know their wares to be of the very best.

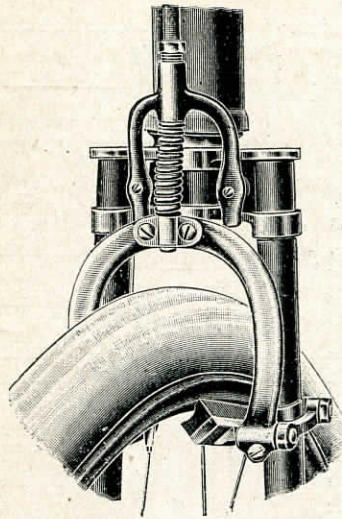
The Centaur Company are again making a speciality of their feather-weight cross frame. It is a marvel of lightness, weighing, "all on," not more than 26½ lbs., which is really an extraordinarily light weight for a fully equipped machine. There is something of a "rage" for cross-framed machines, and those who select



BOWDEN BRAKE LEVER.

one should be careful to choose a good one. The Centaur is certainly made of sound stuff. Only recently I examined one that had been ridden for ten years, over all sorts of roads, and on the track as well. It looked antiquated, of course, but it was, to all appearances, a thoroughly sound machine, and I should not mind riding round England, next week, on the very same.

There is not likely to be very much in the

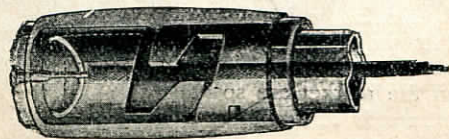


BOWDEN FRONT WHEEL BRAKE.

way of new tyres at the coming shows. The Palmer people regard their tyre as practically perfect, and their standard pattern will therefore remain unaltered. Similarly, the Dunlop firm have seen no reason to make any radical alteration. The firm draw attention to the fact that both their wired and wireless varieties of tyres are made by their latest process of vulcanising the rubber and the outer fabrics together, instead of causing the same to adhere by means of solution. Apart from this there will be no change in the tyres, except the welcome one—to purchasers—that they are to be somewhat cheaper during the coming season.

It is difficult in an advance notice to deal adequately with the many aspects of cycling that are sure to be affected by the various exhibits. The matter of saddles is, however, always with us. I have spoken on other occasions of saddles which have seemed to me to have intrinsic excellences of their own. But I have not hitherto called attention to the merits of the Victor saddle, made by Messrs. E. & A. Noirit, of Walsall. It is nicely ventilated, having a deep opening down the middle line, and by the same means avoids pressure in those cases where pressure is a bugbear. It is readily adjustable, as all the good saddles are, and the rider must be clumsy indeed who cannot make it comfortable to his own requirements.

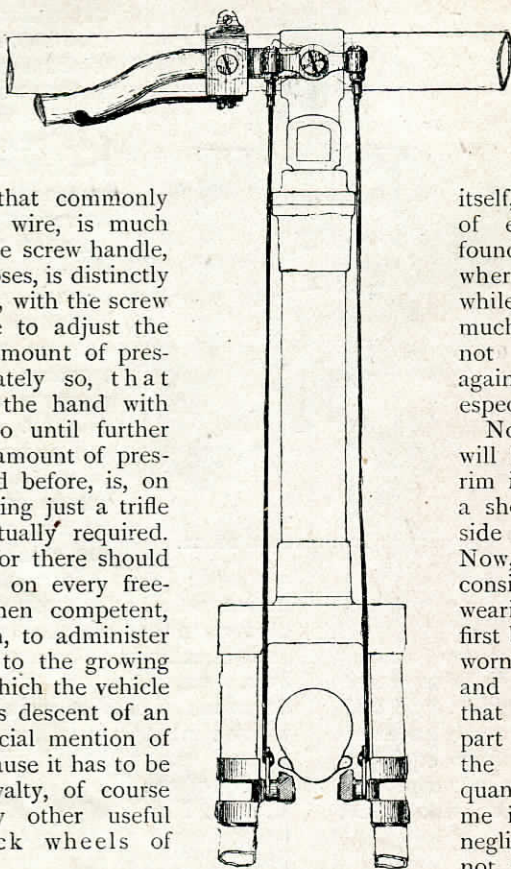
There may be expected a few novelties in brakes, for with the rapidly extending vogue of the free-wheel, a thoroughly trustworthy brake—not to say two brakes—attached to the machine becomes more and more obviously a *sine qua non*. I would here again call attention to the merits of the Bowden arrangements. The invention of the Bowden wire for transmitting power round the angles and corners of the framework was a stroke of genius. It is probably the very best known way of getting tension transmitted



BOWDEN SCREW HANDLE GRIP.

to the rim of the back wheel from the place where one grips the handle-bar. But the form of it in which the useful little trigger that commonly actuates the Bowden wire, is much better known than the screw handle, which, for some purposes, is distinctly its superior. You see, with the screw handle it is possible to adjust the brake to the exact amount of pressure, or approximately so, that you require, leaving the hand with no more work to do until further orders. The proper amount of pressure, as I have stated before, is, on long declines, something just a trifle short of what is actually required. The second brake—for there should always be a second on every free-wheel machine—is then competent, at the slightest touch, to administer the requisite check to the growing speed and impetus which the vehicle tends to gather in its descent of an incline. I make special mention of the Bowden wire because it has to be employed—under royalty, of course—in applying many other useful brakes to the back wheels of machines.

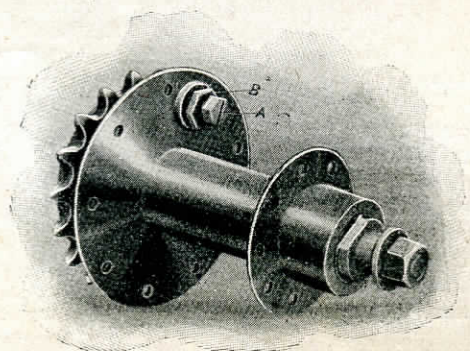
The compensating brake shown is a case in point, although this is primarily designed for application to front rims rather than to back ones. It is being manufactured by Messrs. Morgan Bros., Ltd., of Floodgate Street, Birmingham, and all particulars concerning it may be had either from them or from the patentees, Messrs. Tilston & Salisbury, of 62, Ayres Road, Manchester. It is so extremely recent an invention that I cannot say with certainty that it will be shown at the shows, but I make little doubt that such will be the case. The novelty of the brake lies in the compensation which its name implies. Most rim-brakes that are now upon the market are so constructed that the shoes rub very unevenly upon the rim. This is



TILSTON & SALISBURY'S
COMPENSATING BRAKE.

commonly due to unevenness in the rim itself; for, granted that a rim is true to begin with, it is almost sure, in the course of fair wear and usage, whether it be adjusted or left to itself, to develop a certain amount of eccentricity. There are then found to be segments of the rim where the shoes press hard on, while at other points they grip much less pronouncedly, and it is not unlikely that other segments again are entirely missed by them, especially during a fast "coast."

Not only is this the case, but it will be found that one side of the rim is sometimes being gripped by a shoe at a time when the other side is quite escaped by its fellow. Now, the defect here does not consist so much in the uneven wearing of the rim, as might at first be supposed. I have put badly worn rims under the micrometer, and have been surprised to find that the detrition in the thinnest part did not amount to as much as the 2,000th-part of an inch—a quantity which you will agree with me is, for all practicable purposes, negligible. The important point is not the bad wearing of the rim under such conditions, but rather the fact that the brake is not on all the time, and therefore misses something of its ideal efficiency. Messrs. Tilston & Salisbury's compensating brake has the merit of being on all the time you want it, clinging continuously to the rim, and with an even pressure on both sides of it. This effect is obtained by connecting the two brake-shoes to a swivel lever, which is free to oscillate about a fixed pin attached to the handle lever. This is well shown in the illustration. Of course, as in all rim-brakes, the method of application has ultimately to be a pulling-up action. In the diagram shown, it will be seen that this is got by a pushing-down movement, which, I may explain, is done by the



HUB OF THE RALEIGH FREE WHEEL & WILL.

thumb, the return, or taking-off, being effected by the light spring shown. The brake, however, can be applied by a lever with its fulcrum situated on the far side of the head, in which case the action would be a pulling-up one, as is the case with the brake lever in the ordinary plunger brake, and would resemble the Linley brake, which I have previously spoken of as an excellent one for all front wheel work.

The firm will make either arrangement, as desired, but they wisely recommend the pull-up arrangement described. The actual pull is taken by two wires. Experimentally, these were wires that wrapped around two spindles, which were thus highly adjustable as regards the length of the wires. But the form of the brake which is to be made a feature of in the forthcoming season will be that in which two ordinary cycle spokes are employed as tension wires. These details, however, are details only. The main thing about the brake, and the point upon which its ultimate validity will depend, is the compensating swivel arrangement at the point of application of power from the brake lever. This is so designed that anyone can see at a glance, how, by a simple sort of see-saw arrangement, the pressure of the two shoes is kept on equally and continuously as long as the brake is required to act.

At the last moment I have received two "cuts" from the Raleigh firm. One is of their "Model No. 20 D." It is a light roadster, weighing 29lbs. "all on," and its design of cross frame is not only pleasing, but is one of those coming within the conditions I stated when dealing with cross frames generally. It will be observed that no one of the ends of the cross of the frame comes in contact with the middle of another tube, but that all junctions are made at terminal angles of the framework, and are there thoroughly well supported. The same firm has produced a "free wheel at

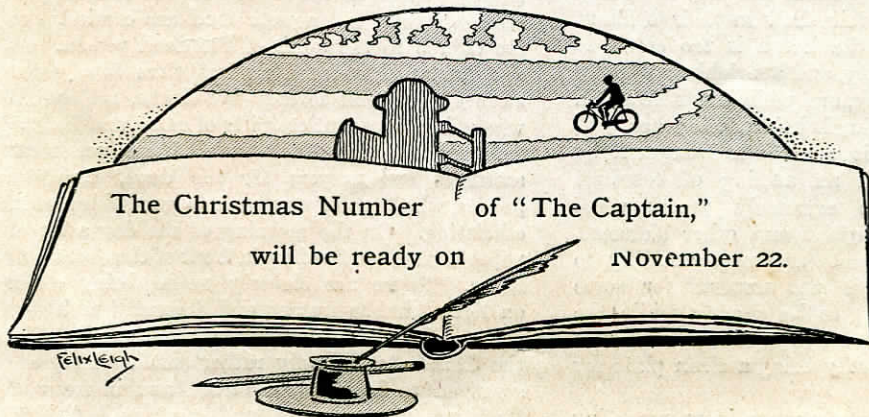
will" hub. This is still another device, and a very good one, for changing a free gear to a fixed one, or *vice versa*. All that is necessary is to manipulate the contrivance marked "B" and "A." A bolt, which can be turned by a common wrench, is carried by a flange on the hub, and engages with an aperture in a corresponding flange upon the clutch. The arrangement is simplicity itself.

I have made no attempt to indicate all, or even a considerable portion, of the things of cycling interest that will probably be found at the forthcoming shows. That would be impossible at the time of writing. But perhaps I have indicated some of the directions in which students of these shows should look who wish to keep abreast with what is being done in the way of applying the art of engineering in the larger and lesser branches of cycle construction. The whole story of the growth of the beautiful vehicle of locomotion we can command to-day has been the story of added trifles; and if the shows of the present year of grace can offer us no more than trifles—which is, as yet, very far from certain—I would still advise every fellow, and, incidentally, every girl, who really cares about the pastime, to devote some serious days or evenings to a careful study of the shows.

ANSWERS TO CORRESPONDENTS.

R. S. R. (BURTON-UPON-TRENT).—I am very sorry that it is quite impossible to reply through the post. If you only saw my letter-bag you would readily forgive me. Your plan is a delightful one. As a first attempt, I should strongly recommend Bakewell as a centre. "**Marchie**" (BOLTON).—I think it a fair offer, and you should find the machine all right. Some change gears are good; I will try to find opportunity to deal with the subject. The Swain and Horwich tyres are excellent value at the price. They are strong, and difficult to puncture; but, of course, that means that they are not fast. **C. E. Z. (MOUNT DURAND, GUERNSEY).**—(1) I cannot advise you to purchase. (2) The sum you have is quite sufficient to

buy something decent, and in the second-hand line it should command absolutely the world's very best productions. You should be able to succeed nearer home. (3) They rarely do; but dealers increase their discounts, which comes to the same thing, and private owners are generally more ready to sell.



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