A HOLDER TO FACILITATE WORK ON BOOTS OR SHOES.

The tedious and tiresome work of cleaning and polishing boots and shoes may be greatly facilitated, and the task rendered much easier, by the simple and novel apparatus shown in the accompanying illustration. For this improvement patents have been granted in the United States and Canada, and in the principal European countries, to Richard Lundqvist, of Laguna de Terminos, Mexico. It consists of a stand carrying a post on whose upper end is a rubber-faced block shaped somewhat similar to a foot, on which may be placed a shoe with a last inside, there being in the top of the last a longitudinal recess or slit adapted to be engaged by the overhanging upper end of a pivoted lever, whose lower end passes through an opening in the post. A spiral spring normally holds the lever out of contact with the last, but when the lever is moved into engagement with the top of the last, it is thus held in locked position by means of a wedge, holding the shoe firmly against the block and permitting the operator to use both hands in his work. The operator is also thus enabled to employ his strength to the best advantage with the brushes or for the after polishing with the woolen cloth, the heat generated by the friction of which is designed to soften the hardened fatty matter in the leather and contribute to its durability and the comfort of the wearer. A smaller block is placed on top of the larger one when ladies' and children's shoes are to be polished. It is not designed that the last shall fit very snugly in the boot or shoe, so that a large and a small last will answer for a considerable range of sizes, the boot or shoe, where necessary, being partially stuffed with rags, paper, or other soft material to make a sufficiently good fit. Upon the post is also fixed a box with hinged covers, in which may be kept the lasts, blacking, brushes, cloths, etc.

LUNDQVIST'S BOOT OR SHOE HOLDER.

THE ART OF HORSEBACK RIDING.

Capt. J. B. Dumas, at our request, has been kind enough to send us a very interesting note upon the method that he employs in his teaching at the High Riding School. We reproduce it:

"My object," says he, "has been to realize by a succession of images that photography renders indisputable a monograph annotated, figure by figure and point by point, with all the gaits and all the paces of the High School. Placed in the center of the arena with my pupil, I secure by photography the precise time that his inexperienced or powerless eye has not completely seized. I make him see it; I explain it to him: (1) from the view point of quadrupedal locomotion; and (2) from the more important view point of the use of the horse for riding. These lessons do not go without a com lete revision of all the existing works upon locomotion passed through the sieve of a very long experience with the horse and completed by entirely new researches. I wish to say that I was the first to study and point out the influence that declivities exert upon the gait of the horse that moves thereon. I have deduced therefrom two rules: tendency to a lateralization of the gait in descents and a tendency to diagonalization in ascents. The conclusions are deduced of themselves to the end of improving the gaits of lateral form and those of diagonal form. I have, in fact, made a thorough comparison of the pace and the gallop, and concluded that, as regards forms and the kind of equilibrium engendered, these two gaits are sisters, and, all other things in time and space being equal, produce identical results in the emphasizing of the supercharge of the shoulders and the bearing down of the horse. These are the gaits of lateral form. On the contrary, I have found that the gaits of diagonal form, such as the trot, ease and raise the horse by facilitating the transfer of the weight to the hind quarters. These are two points to be noted and borne in mind in training, according to the individualities considered (man or horse) and the necessities to be satisfied.

"Finally, the beginning and end of all my system of training is summed up in one rule of the simplest character, in one sole principle for the rider: Act with the leg on the same side and at the same time as the anterior of the animal that is posing, the end of the horse's nose pointing in the direction of the motion to be begun. This is as much as to say: require of the animal an oblique or lateral motion only when his anterior, raised in the direction of the motion to be begun, permits him to execute it. This corresponds to the instruction given the foot soldier: turn on the side of the anterior raised or carry the weight of the body upon the leg that does not begin the motion, and carry it afterward in the direction of such motion, in order to extend and amplify it. This simple rule leads to correct turns without resistance or revolt, to the Spanish pace, to the prance, to starts at a correct gallop, etc., and, in a word, to correct riding in all the gaits and paces of the High School, and to the rapid training of the horse."

We accompany this interesting dissertation with some specimens of the photolithographs that illustrate the Album de la Haute Ecole, recently published by Captain Dumas and Viscount Ponton d'Amercourt. Figs. 1 and 2 reproduce exercises that are very difficult of execution, and which denote great skill upon the part of the rider. Figs. 3 and 4 show times of the great elongated trot and the racing gallop. Fig. 5 gives the work upon a declivity, useful to Alpine hunters. Fig. 6 shows the cabriole, an exercise that can be performed only by first-class riders.

We shall now examine with the authors one question, and that is the utility that these documents present from the view point of the artistic reproduction of animals in motion.

An experienced eye succeeds in seizing the impression of an action whose duration is not less than one-sixth of a second. Further, in order to succeed in this right along, it is necessary for it to have recourse to the utilization of the luminous impression upon the retina.

The observer should attentively follow with his eye the horse in motion at a distance of 100 or 150 meters, and then, immediately after the rapid execution of the time of the motion that he desires to study, he should abruptly close the eyes. The organs of external sight, had he not thus momentarily arrested their operation, would have continued to register the different periods of the acts of locomotion in measure as they were executed while rendering account of themselves to the mind, so to speak, only every sixth of a second; that is to say, in grouping them more or less. It would, therefore, have been able to succeed in seizing a clear image of the decomposition of the motion; but the retina, owing to the persistence of the luminous impression, momen

Fig. 1.—SYNCHRONOUS MOTION OF FORE AND HIND LEGS DIAGONALLY WITHOUT ADVANCING.

Fig. 2.—INSTANTANEOUS HALT IN PARADE.

Fig. 3.—GREAT ELONGATED TROT.

Fig. 4.—RACING GALLOP.

Fig. 5.—UPHILL WORK.

Fig. 6.—THE CABRIOLE.